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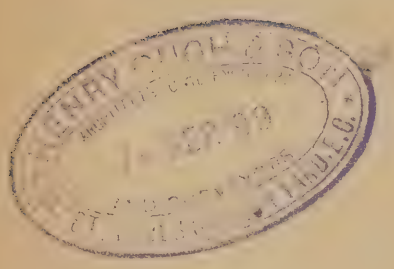
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The Builders' Journal

AND

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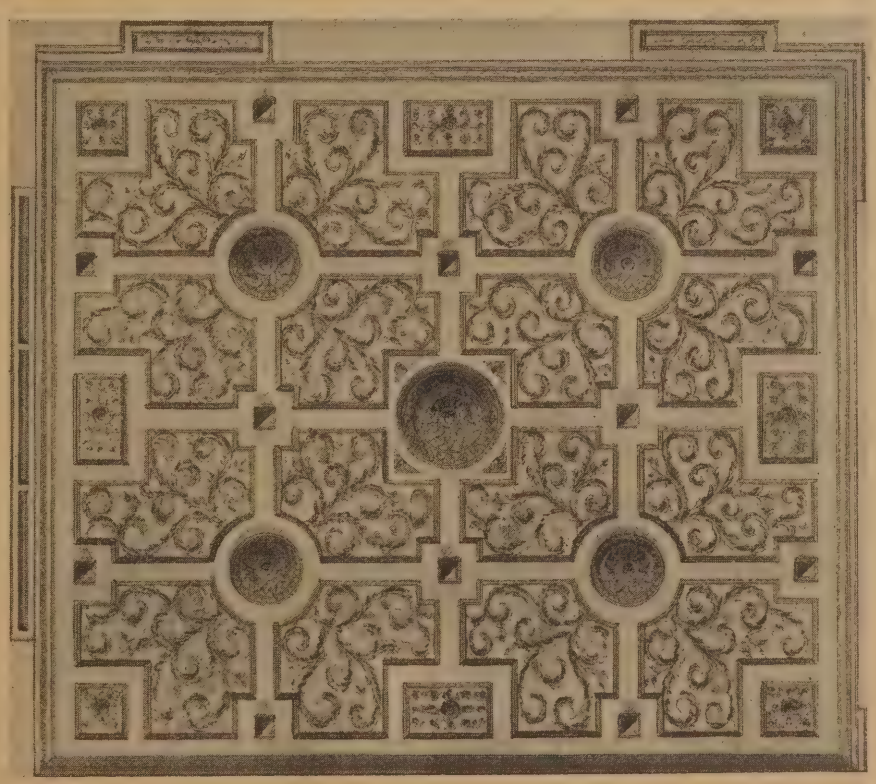
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An Enlargement and an Edition de Luxe.

We have to announce that a further Enlargement of The Builders' Journal and Architectural Review, as issued each week, has been decided upon. This will be the third enlargement since the inception of the paper, exactly eighteen months ago. It will be of quite as substantial a nature as its predecessors, and it will salute, if we may be permitted to say so, the opening of the Winter Session. After the holiday interregnum, therefore, our readers will find a further four pages of current professional matter in their Journal each week, making—with the absolutely Complete Contract List and Tenders—twenty-two pages of first-hand and exclusively written Architectural criticism and news. We have also to announce the publication as a monthly Magazine, of an *Edition de Luxe*, containing the most permanent illustrated features of the "Journal;" a complete record of all Architectural information throughout the World; and as the monthly Magazine develops — permanent and exclusive features of its own. In all this we are simply pursuing the bold and spirited policy which has given our "Journal" the largest Architectural sale of any professional organ in the country, and which, during the last twelve months of its career, has won for it an equal, if not a premier position, to the only other authoritative organ on what we have designated (and others before us, though the dignity of the phrase seemed likely to be forgotten) the Art of Building. The keynote of our attitude to Architecture is so well sounded in a letter we recently received from one of the most eminent of Scots Architects that we would quote a sentence: "Your 'Journal' is sufficiently comprehensive in its scope to embrace Architects, Designers and Craftsmen, and has acumen enough to recognise their true unity. A 'Journal' recognising this has, manifestly to my mind, its face in the right direction." It has been this recognition of the *personal* in Art,—not the tattle of Personality, but Personality's Influence, that has sent The Builders' Journal and Architectural Review, we have full reason for believing, to every Architectural office in the country. It was but one step further—but how far the journey—to judge by the then existing standpoint of professional journalism!—to the equal recognition of the elements and influences of Design and Craftsmanship. There has thus become, modestly, as yet, but of growing influence, a certain commonwealth of Art within the covers of this "Journal." The Architect, the Surveyor, the Designer, the Craftsman, the Contractor, the Builder, have to be regarded, and as the pressure upon our space grows from week to week, it is quite impossible to adequately represent the whole of those co-mingling and yet divergent interests without, from time to time, increasing the provision of pages. With the applications we have received from many Surveyors we have decided to include the proceedings of the well-directed Surveyors' Institution in our columns. With the courteous co-operation of Mr. Julian C. Rogers, the Secretary, arrangements have already been made to that effect. By reason of the increased



DESIGN FOR CEILING OF SMOKING ROOM: BY PROFESSOR G. AITCHISON, ARCHITECT.

mechanical facilities announced in the Spring of this year, we shall be enabled in the forthcoming Session as in the latter half of the one concluded, to fully report (so far as the Council permit any one of the Professional Press) the proceedings of the Royal Institute of British Architects and upon each occasion several days before any of our contemporaries. We are gratified to feel that the Institute long ago came to regard us a factor making for the advancement of Architectural Art and the prestige of the Profession, and it is with distinct pleasure we are enabled to include Professor Aitchison, A.R.A., in our current number, among "Men who Build." To very many members of the Council we are indebted for suggestions and active support. The Architectural Association's proceedings are always of so manifest an interest that to do other than justice to them, is to ignore the one source of ardour and enthusiasm among Professional Societies. But apart from these organizations of professional prominence there are others—in the press passed over—who will in the coming Session be adequately regarded. Thus the enlargement becomes compulsory. The *Edition de Luxe* of the "Journal," published monthly, under a new title, with a cover in artistic sympathy from the *bizarre* and brilliant fancy of Mr. G. C. Haite, will appeal to thousands of interested "laymen" outside the Profession; it will bring the work and personality of the Architect, the Designer, the Craftsman, into the hands of those who meditate the building of their own houses in obedience to the Home Spirit; that exquisite Mediæval Spirit which, walking not in the Early Victorian Era, has at last re-arisen to teach Middle Class England the dignity of a mullion, the coquetry of an ingle, the hearth warmth of copper, the welcome of a gable, that sense of rest and soft night settling down among the warm chimneys which so long has been the perquisite, the poetry, of the patrician.

HUNSTANTON'S NEW TOWN HALL.

LADY COTTENHAM performed the ceremony of opening the new Town Hall on the 6th instant. The building has been erected from the designs of Messrs. G. J. and F. W. Skipper, Architects, of Norwich, whose plans were chosen in a limited competition. The walls are constructed of brown carr stone, relieved by window and door dressings of Monk's Park Bath stone. The roofs are covered with Broseley flat tiles and the whole presents a picturesque "old English" building, standing next the Golden Lion Hotel, facing the Green south-west. The main entrance is by a wide flight of stone steps, through an arched doorway into a spacious vestibule, on either side of which are ladies' and gentlemen's Cloak Rooms and a Ticket Office. Thence are two entrances into the large Hall, which is 77 feet long, and 37 feet wide, with an open timbered roof of massive principals. At one end is a Gallery and at the other, a broad, deep platform or stage, provided with retiring rooms. Beneath this is an ample Store-room which can also be used as a retiring room for artistes at concerts when required. The windows are mullioned and transomed, and the walls, which are coloured green grey, have a dado of matchboarding to window height. This room, as the opening ceremony proved, has excellent acoustic properties. Crush doors are provided, with a separate entrance for front seats. The Council Offices are approached by a side entrance in an octagonal annexe, and are also coloured green grey with pompeian red dado. The Council Chamber is on the ground floor, and adjoining it is the Clerk's Office, and on the floor beneath the Surveyor's Office is situated. The heating is by hot water pipes on the low pressure system. Mr. Solden Hinwell, of Wisbech, was the contractor, and Mr. Walker, the surveyor, has acted as clerk of the works.

CAMBRIDGE AND ITS EARLY HISTORY.

By J. W. CLARK, M.A.

AT the summer meeting of the University Extension Students, Mr. J. W. Clark, M.A., Trinity College, gave a lecture on "The History of Cambridge" in the large Lecture Room at the Anatomical Museum. In consequence of the short time at his disposal it was impossible, he said, to go with any minuteness into so long and intricate a subject as the history of the University of Cambridge. He proposed to give them a sketch of that history almost entirely from the side of its buildings. The great landmark of the town was the river. He believed the river had not altered appreciably since historic times. Then the street which ran right through the town, roughly speaking from north to south, was a Roman road. It was now called Hills Road, Regent Street, St. Andrew's Street, and Bridge Street, from the great Bridge, the one Bridge in former times across the river. The third landmark was the Castle. There was a considerable eminence on the left bank of the river, just at the bend, crowned by a great earthwork. That earthwork, he believed, was now decided by competent persons to be British. They found from a notice in "Doomsday" that 27 houses were destroyed for building the Castle. The Castle was built by William the Conqueror when he came to Cambridge to fight in person against the fortified Monasteries of Ely. From Castle Hill could be seen the remnants of earthworks, ditches, and so forth. The Castle was put in some sort of defence by the Parliament troops, under the Earl of Manchester, during the Civil War, and a great many of the earthworks, he believed, were constructed at that period. Nowadays, the river was called the Cam and the town Cambridge, but in the "Saxon Chronicle" it was called Grantebridge. In "Doomsday" it was called Gret and later it was Granta. The conclusion he had come to was that the name of the river was derived from the town and not the town from the river. In the little Church of St. Peter they could see Old Norman work unrestored. The Church of St. Giles had been entirely restored. That Church was very interesting as having been a portion of the great Priory of Barnwell. Still more, they saw evidences of Norman occupation in the Church of Holy Sepulchre, which he strongly recommended as one of the few round Churches in England. Coming to Cambridge proper, is the fine Church of St. Benet. It was the fashion to call the Tower of that Church Saxon, but he thought it was more desirable to speak of it as pre-Norman. There was no Norman work about it whatever. He questioned whether there was any Norman work in Cambridge itself. Therefore, he felt very much disposed to accept the theory which, he believed, was first started by Mr. Freeman, that the founders of the town were at first entirely distinct and that gradually they came together. Of course, the houses would go down the great Roman Road, and the parish which was around St. Benet Church and the parish around the old Roman Station gradually became united. In estimating the importance of Cambridge they must always keep in mind how very valuable the river was. Monastic orders came here at a very early time; they were the first persons they could take note of as modelling the town. King John took steps for surrounding the town with some sort of fence. What he did they did not know, but Henry III. did a much more important work, and what was meant to be a much more important work; he determined to surround the town with a fortified ditch. He only had time to dig the ditch and the fortifications were never completed. A portion of the ditch remains at this day. It started from King's Mill and it ran in a north-easterly direction across the site of the Museums and then went close by St. Andrew's Church, across the St. Franciscan site until it got into the river again just opposite Magdalene College. That was done in 1267. By the end of the thirteenth century the town had become a compact collection of buildings. Now they came to the period of the foundation of the University. That was an event which was involved in impenetrable mystery. They could not say at any given year, or at any given period, it entered somebody's head to found a University, either here or anywhere else. It seemed to him quite clear the University grew up in a sort of spontaneous way. Probably the whole thing was fostered by the great religious houses in the neighbourhood. At the end of the century the first College was founded. Merton College, Oxford, was founded in the year 1264. The Bishop of Ely was not slow to follow the example which had been set and Peterhouse was founded in the year 1284. They must not suppose that the College system became suddenly what it was to-day. A mediæval College was as different as possible from a College they saw and admired now. The founder of a College intended his College to be not for undergraduates but for teachers. The founder contented himself by buying one or two houses. The houses were selected as near as possible to a Parish Church in order that his Fellows might have a place for their devotions. The undergraduates lived where they could, but before long they began to live in communities; they took houses and established themselves there. All those houses were called Hostels. The next Hostel was called Michael House, absorbed in Trinity College. Then came the foundation of King's Hall. King's Hall was rather different from any of the others; it was, in fact, a school—boys were to be educated there. It was a royal foundation, and the King gave orders that no one was to be admitted who was older than 14. Then came a number of Colleges in succession. First of all Clare Hall, which was in its original position. It was founded in 1338. By that time it had evidently become the fashion to found Colleges. They got four in rapid succession. Pembroke Hall in 1347 and then Gonville, Trinity Hall, and Corpus. Buckingham College, now Magdalene College, was exceedingly interesting as representing the efforts of the Benedictine orders. To come back to King's, the King devised a great scheme for building a magnificent College, which, if realised, would have been one of the most magnificent Colleges in the world. Its foundation was immediately succeeded by Queens'. Catherine Hall grew out of King's. The Bishop of Ely in 1497 suppressed the Rhadegund Monastery and turned it into a College. Jesus College was well worthy a visit. Then Lady Margaret founded Christ's College during her life and lived to see it completed. She took steps for suppressing Augustine's House and built the magnificent foundation of St. John's College on its site. It was done after her death by her executors. Then they got Trinity College. Henry VIII. was determined to outdo everybody by a foundation on wider lines and greater extent than any that had preceded. Two hundred years elapsed before the College of Downing was built. Downing College was gigantic in extent and he might mention gigantic in its failure. They thought they were going to do wonders. They did do wonders in one respect; they got a splendid site, but funds fell short, and the buildings were restricted. He supposed most people imagined that Colleges were built much as they saw them now. Nothing could be more erroneous. The beginning was a very tentative one.

GLAMORGANSHIRE and Pembrokeshire are famed for their ancient crosses, some not so well preserved and looked after as they should be; but, according to Mr. Westwood, the cross near the old village of Carew is the most beautiful. It dates from the eleventh century.

ALDERMAN T. W. HARDING, who a few months ago commissioned Mr. William Bakewell, Architect, to design for him a scheme for the laying out of Leeds City Square, which was partly adopted by the Corporation, has offered to provide the proposed central monument and bronze ornaments on the circular balustrade, the estimated cost of which is from £3,000 to £5,000. Mr. Harding has already conferred with an eminent English sculptor as to the preparation of the model to be submitted to the committee, and has commissioned Mr. Drury, the sculptor of the Circe now in the Queen's Room of the Leeds Art Gallery, to prepare a model for the figure lamps intended for the circular balustrade.

ABBEYS OF THE PAST.

THE THAMES OF OUR MEDIÆVAL ANCESTORS.

THE River Thames, says Mr. Grant Allen in a contemporary, was once as remarkable as the Rhine itself for Architectural magnificence. The scanty remains which still exist of its monastic establishments, for the most part built into modern mansions, hardly convey an idea of its former splendour in this respect; while its long chain of Castles, once comparable to those which line the great gorge between Coblentz and Bingen, have now (with one conspicuous exception, Windsor) so utterly disappeared that scarce a mound remains to mark the site of their former Keeps. Yet it is certain that the Thames, in its palmiest days, must fully have equalled the German river in the number and magnitude of its fortified Castles; while in conventual establishments it far surpassed its Continental rival. It is in respect of the great succession of Abbeys which once fringed the banks from Oxford to London that we purpose briefly mentioning in this article. In mentally restoring the Thames of our mediæval ancestors, we must forget altogether the artificial canalised stream which we know to-day, bounded through all its course by definite banks, confined by the shameful humiliation of concrete, and curbed at every point by locks, weirs, or lashers. In its place, we have to imagine a far broader, swifter, and more variable river, spreading out here and there into lake-like expansions, not remotely recalling the Broads of Norfolk. The most unobservant spectator must have noticed, however, that while the Castle usually crowns the crest of the hill or rising ground for purposes of defence, the Abbey or Nunnery nestles snugly, as a rule, in a picturesque nook by the bends of the river. For this choice of site there were many sufficient reasons. In the first place, the Castle must needs be placed high on military grounds; and the village clustered in most cases round its feet for protection—the monks alone, in those ages of violence, could afford to consult their æsthetic tastes in the selection of a place for their habitation. Then, again, they had need of wood and water, while a navigable river afforded them a cheap and convenient highway for their building stone, their bells, and their stained glass windows, in days when roads as yet were not. Lastly, they were an industrious folk, and they loved to reclaim the marshy meadows. All these things combined to make landowners yield them readily the outlying manors by the river side which, from the feudal lord's point of view, were scarcely worth the trouble of drainage and cultivation. Hence it came to pass that by the period of the Dissolution almost the whole of the Thames was fringed with

A LONG LINE OF NOBLE MONASTERIES

or of dependent granges, each snugly ensconced in its wooded corner, and looking out from its Cloisters upon the rushing stream, which afforded it at once a safe highway for its goods and a store of fish for its Friday's dinner. Those who have gone over the Carthusian buildings of the Certosa de Pavia, or the great Benedictine Monastery at Fécamp before its last fire, will be able to restore for themselves in fancy the magnificence of these buildings; while even in our own country the existing remains of Fountains Abbey will serve to suggest the wealth and beauty of those great structures which have passed away at Abingdon and Dorchester. Taking only into consideration here the reaches of the river now familiar to boating men, from Oxford to London, the first great group of Monastic buildings upon which we come were those of Oxford itself and its immediate neighbourhood. Highest up of these stood the famous Nunnery of Godstow, where the too-celebrated Fair Rosamund lived and died. This vast establishment, of which little now remains save the boundary wall, included a noble gateway, leading into a spacious court, with an immense Church, cathedral-like in size, a glorious Cloister, and two beautiful little Chapels. When first built by Edith, the wife of Robert D'Oiley (nephew and namesake of the founder of Oxford Castle) it was of sufficient importance to be consecrated by Alexander, the great Bishop of Lincoln, in the presence of King Stephen, Queen Matilda, and Eustace, their heir-apparent. To-day it is hardly even a picturesque ruin. A couple of miles lower down, at Osney, the same Edith also founded an Abbey for men of the Augustinian order, whose soaring Priory and Church, 24 Altars, two Campaniles, and numerous Chapels rendered it one of the most famous Monasteries in England. Its chime of bells was particularly celebrated; the biggest, inscribed to St. Thomas of Canterbury, once bore the quaint dedicatory inscription, in a limp rhyming hexameter, "In Thomae laude resono Bim Som zine fraude." Later on the Protestant canons carried it off to Wolsey's new College at Oxford, where it still preserves some memory of its name as "Great Tom of Christ Church." Oxford town itself was full, in its day, of monastic establishments, which ante-dated the Colleges. Chief among these was the Priory of St. Frideswide, the revered local saint, the Church of which is now the Cathedral; while that part of Christ Church known as the Old Library consists of a portion of the ancient Refectory. Most of the other religious houses have

HOPELESSLY DISAPPEARED.

The Franciscans had a Monastery near the river, of which Paradise Square was at one time the garden; the Dominicans settled near them, but only the names of Blackfriars Road, Friars Street, and Abbey Place, now attest their former existence. The North Western Railway Station disfigures the spot that was once Rewley Abbey; while portions of the Benedictine house may still be seen built into the mass of Worcester College. These, however, are but a tithe of the once flourishing monastic establishment of which Oxford could boast, since almost every leading Monastery in England—such as Malmesbury, Evesham, St. Albans, and Tavistock—had branches for education in the city of learning. All, all are gone, the old familiar places. We are scarcely out of the Oxford group again, when we are into the equally important Abingdon circle. The "Minchery" or Nunnery of Benedictines at Littlemore belongs to the first, as does also the Preceptory of the Templars at Sandford; but Cumnor Hall, associated in most minds only with the foolish and probably apocryphal story of Amy Robsart's murder, was long a country seat of the Abbots of Abingdon, where they retired for health from the malaria of the river. A little lower down beyond the

EXQUISITE SMALL NORMAN CHURCH

of Iffley, we come upon Radley, which was also a Manor of the mighty abbots. Abingdon itself grew around its Abbey, one of the oldest, largest and most important in England. It was a Benedictine house, with a mitred abbot, and its enormous Church, now utterly destroyed, must have ranked in beauty with any Cathedral in the country. The monastic buildings themselves were on a sumptuous scale; nothing now remains of them save one splendid gateway, enclosed in a brewery. The river on either side, both up and down, was fringed for many miles with the abbot's outlying Manors and granges. The next great conventual establishment, as we descend the river, was at Dorchester—the Oxfordshire Dorchester—which had a narrow escape of becoming the ecclesiastical metropolis of England. For it was here that Birimus, the apostle of the West Saxons, set his Bishop-stool; and since the Kings of the West Saxons grew slowly to be kings of England and of Britain, it might naturally have been expected that the original West Saxon See would wrest the supremacy from far-eastern Canterbury. The diocese, indeed, included all the counties now distributed between Lincoln, Winchester, Salisbury, Bath and Wells, Lichfield, Worcester, and Hereford. When the seat of the bishopric was removed to Lincoln, the old Cathedral of Dorchester became the Church of a Priory of Austin canons. It was afterwards rebuilt in

THE PERPENDICULAR STYLE,

and still remains the chief Architectural glory of the river. Scarcely a trace exists of the conventual buildings, which must once have been most extensive. Yet large and handsome as is Dorchester Church, we may judge of the losses we have sustained in this respect when we reflect that it was not half the size of the one so utterly and ruthlessly destroyed at Abingdon. Passing by the little Norman shrine of Crowmarsh, and the ruined Chapel of St. Nicholas at Wallingford, we get next to Goring, with its Nunnery of Augustinians, of whose stately Chapel the existing Church formed a small fragment. And here we begin to touch the domain of those princely churchmen, the Abbots of Reading, who possessed a fine manor house at Bere Court, near Pangbourne, and who pervaded with their granges all the neighbouring reaches of the river. The great Benedictine Abbey at Reading itself was numbered among the first three in England. It was enormously rich and very magnificent. The existing ruins, however, are little more than masses of shapeless masonry. From this point we will not attempt to do more than just mention in passing the chief monastic remains—Medmenham, a severe Cistercian house, whose slight relics have been built up into the sham Rabelaisian Abbey of Wilkes and his associates; Bisham, now also converted into a county seat, but bearing witness to this day to its former magnificence; Chertsey, left almost without a trace of its former glory; and, last of all, Westminster itself. These are but a few of the numerous Monastic buildings which lined the banks in long procession; and if we add to these the occasional Chantreys, the Pilgrimage Chapels on the hills, the Hospitals and Lazar Houses, the little Oratories which stood at the middle of the bridges, and the great Castles which looked down from the neighbouring hills, it will be clear that the Thames of the early Tudor period must have equalled or surpassed the gorge of the Rhine to-day in architectural interest.

MR. HAMO THORNYCROFT, R.A., has been commissioned by Mr. Howley Palmer, one of the governors of St. Paul's School, to execute a statue of Dean Colet. This will be placed under a canopy in front of the School at West Kensington.

THE family of the late W. H. Waddington have agreed to sell to the French Government for 500,000 francs (£20,000) his fine collection of coins, which pecuniary losses prevented him from bequeathing to it, as he originally intended.

AT the weekly meeting of the Newport Board of Guardians, a resolution was adopted to the effect that in all contracts entered into by the Board the persons employed must be paid the trade union rate of wages and observe the recognised hours.

A SHRINE of great beauty, designed by Mr. Bentley, and executed under his immediate direction, was recently dedicated at St. Mary's, Chelsea. The new statue is of wood, gracefully carved and delicately coloured. It is surmounted by a gilded canopy that tapers up to the Chapel roof, and stands on a pillared pedestal and altarino of green and grey marble.

IN Trinity Episcopal Church, Keith, a Memorial stained-glass Window has been erected in fulfilment of a request of the late Mrs. Bryson, of Strathlene. The Window is composed of three Gothic lights with tracing. The figures represent the Saviour, Moses, and the Apostle Paul. The artists entrusted with the work were Messrs. A. Ballantine and Gardiner, Edinburgh.

THE cable tramway to Upper Douglas, the construction of which has been somewhat delayed through difficulties with gas and water mains, has, so far as the lines are concerned, been completed, and only needs the threading of the cable and some finishing touches at the lower house to make it ready for traffic working. The line was estimated to cost some £15,000, but that figure will be exceeded by several thousands.

THE fifty fifth annual report of the Registrar-General contains as a supplement a tabular record by Dr. John Tatham showing that as a result of improved sanitation the average span of human life has increased during the past fifty years. In the decennial period from 1871 to 1880 there was a diminution of the rate of deaths to the thousand as compared with the previous term. In the period from 1881 to 1890 that diminution was maintained and improved upon.

THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

MEN WHO BUILD.

No. 44.

PROFESSOR GEORGE AITCHISON, A.R.A.

"DO you see that house to which a mansard roof has been added; not a particularly attractive 'back' to gaze upon through the windows, is it? and I cannot have it removed because I have not dwelt here long enough, you see, to establish an 'ancient light!'"

I looked through the windows above the drawing board and saw Light—felt no lack of air, compared with the cramped quarters of many a City Architect. The equal, diffused light of a perfect Architectural room, cast no shadows on Professor Aitchison's papers. But if you live in a very charming house at the upper end of Harley Street, within sight of the green of Regent's Park, within hail of soughing trees, you are not naturally inclined to pardon a mansard roof of consumptive-eyed windows with streaky slates—seen through your rear windows.

But it was not at the roof, as a roof, but as an illustration, that Mr. Aitchison pointed a controversial finger. We were chatting on the Architectural tendencies of the day:

"The charming drawings so many of the younger men are able to make—why, they could make a 'pretty perspective' of that mansard roof!—are most happy—if men wish to be artists. But the artistic facility with the pencil is not necessarily Architecture. The designing, the planning, the sense of style are other and more important factors. I am not sure but that the pretty sketching of the day—the picturesque inconsequential note, difficult to localise, is not alien to the true knowledge of Architectural line."

It was easy to pass from this authoritative



view of the present President of the Institute to a more general chat of men and things—a subject upon which Professor Aitchison is at once delightful and genially inconsequential. He has known so many artists and Architects; his almost life-long friendship with Lord Leighton—ever since they were in Rome, together with Poynter and George Mason—has its souvenir upon almost every wall. In the Drawing Room, for instance, two of those rare bits of water-colour, all too rarely painted by the late President of the Academy; wonderful little bits of vivid, virile colour—women's heads—and a "Roman Mother," by the same artist, which happily recalls an interesting little incident, high bred and mutually generous, one ventures to think:—"When I was engaged upon the decoration of the Arab Hall, in the late Lord Leighton's house, it suddenly struck me that three or four of those fine old Persian tiles, previously given me by my friend—and of which I had made a little panel—were just what was wanted to complete a certain wall space in the Hall itself. Leighton was away at the time, and so I took the tiles back and placed them in the position chosen. He returned, was pleased by the whole effect, instantly noted that the little present he had made me some while back had been utilised, and said: 'I see, Aitchison, those tiles!' 'Well, yes; I thought as you were good enough to give me them, you would be good enough to let me replace them!' 'Now, Aitchison, you must accept a picture at once instead,' and so there came down this 'Roman Mother.'"

There is just in that simple little anecdote the true hint of Professor Aitchison's ability to turn a courtly phrase—and, indeed, there is a charming old-world courtesy about the man; one rare and gentle, that sees you to the door of Harley Street with a little bend over the hand-shake and an almost schoolboyish naïvette, utilising the stool in the drawing office while you are waved—over the snuff-box—to the one old mahogany chair not groaning beneath a weight of books. The wonderful mastery of books and papers! How they settle steadily down from the table to the chairs, from the chairs to the floor; rippling and billowing down with thunder; receding, recoiling, defeating you at your grasp.

In a room where bits of prized Roman mosaic hang on the walls, and the Professor's



DECORATION FOR DRAWING ROOM, 52, PRINCES GATE, S.W.: G. AITCHISON, A.R.A., ARCHITECT.

books have been such constant friends that their topography, and their nomenclature and their significance—especially their bearing upon the Arts of Egypt and Greece, Rome and Florence—become immediately bye-words, so to speak, we handle together, he with evident and obvious love, some of the precious Editions of Vitruvius, the collection of which has constituted one of his life-long hobbies. Here is a wonderfully bound *Editio Princeps* of exquisite typography—French—and a quaint one in Spanish; another of 1513 with the signature of Rondelete, who gave the Pantheon its gilded dome—a copy Mr. Aitchison secured in Palermo. Are there not some forty of these prized Editions more than Gwilt mentions? Some with the quaint and curious "cuts" and engravings, others without, French, Italian, Spanish, all but the Polish — which came later. Your host flows easily along in discussion of Vitruvius, pointing out the common misunderstanding with regard to him, to his ignorance of Proportion and Construction — outcome of Roman debasement of the Greek treatises. And having humoured what Mr. Aitchison is sane enough to call his "mania," he chats on of his own career—"if you can call it a career," he says, with a little rhetoric in the "r's" of that word that belongs also to the Older School.

It was in the Edgware Road, then just a rural neighbourhood, that your host was born, but he has the diplomat's objection to revealing his age, for the difference as he humorously puts it, between "a young fool and an old one, is not that great!" The Merchant Taylors' School taught him a good deal in those six years, and then he was articled to his father—Mr. George Aitchison—for the usual seven, becoming a student at the Academy of which he was ultimately to become an Associate. Matriculating at the London University forty-eight years ago, he became student of University College and took his B.A. three years later. Then he assisted his father for a year, next travelled in France, Switzerland and Italy for three years, and on his return was taken into partnership until that father's all too sudden death.

"Now it was a strange thing, was it not? That one who began by taking up his father's duties as Architect to the St. Katharine Dock Company building warehouses at the Victoria Docks (upon that Company's amalgamation with the London Dock Company) should ultimately find his chief *mêtier* in Decorative Design? Those first warehouses of mine, covering several acres, and costing close upon £70,000, were succeeded by other warehouses and wharves on the banks of the Thames, by schools and offices in the city. Then I built a house for Lord Stalbridge, and the chance for other work came when I was asked to alter and decorate a house in Belgrave Square, occupied by the Hon. Percy Wyndham. In those days the halls and staircases of many houses in old London squares were as dark as the night itself. By cutting walls into what may be vernacularly described as the line of the 'dog's hind-leg,' and doubling the roof light, using tinted and Arabesque glass in door panels, and so forth, I was able to make it possible for one to read by daylight."



ROYAL EXCHANGE ASSURANCE CORPORATION OFFICES, PALL MALL: PROF. G. AITCHISON, A.R.A., ARCHITECT.

On the walls of the Hall and stairways at 150, Harley Street, may be seen the water-colour drawings of many of Professor Aitchison's designs — schemes of Decoration always tending to Greek or Egyptian or the Arabesque. Here a remarkable Library fitment in ebony, above which that man of genius and delightful line — Britten — contrived a sea-frieze and rise of sun, there a wall treated in green and gold with brown oak panelling, again a black door inlaid with Mother-o'-Pearl and the walls of that iridiscence and silver with white herons by Walter Crane for the frieze. In the Drawing Room are replicas of the book-cases made for that famous house in Holland Park Road; two chairs to which Sir Frederic himself carved the surmounting dogs' heads; the sense of Classic in all your host's Decorative Work—what a leap of thought and scholarly research from those Thames-side wharves! It was thus that the Hon. Percy Wyndham found his house transformed at No. 44, Belgrave Square; thus the Duke of Montrose at No. "45;" other houses at Lancaster Gate, Kensington Park Gardens, Berkeley Square; the houses also of Lord Hillingdon and Sir Wilfrid Lawson; the apartments of Princess Louise in Kensington Palace; No. 9, Chesterfield Gardens, for Lord Leconfield—some of the best houses in London (and out of it) called for the Professor's services. And among these designs upon the walls and stairways of the house in Harley Street are interspersed surely one of the most delightful collections of little gems of Art, the scintillation of many styles, to be found in London. Two magnificently-drawn female figures by Britten, in crayon, figures with life in every curve and line, full stepping from their frames with the lilt of Spring in the eyes—wonderful figures that subdue even those of Albert Moore. There are Albert Moore's on the stairs above, graceful as ever, reposeful; the bucolic notes of Caldicott; an original sketch for a Venus by Leighton (rescued in those Rome days from a waste-paper basket), the vigour and breadth and breeze of that great artist, George Mason, of whom your host says, "Surely the most charming man Nature ever knew; a wonderful fellow," and this word of Leighton:

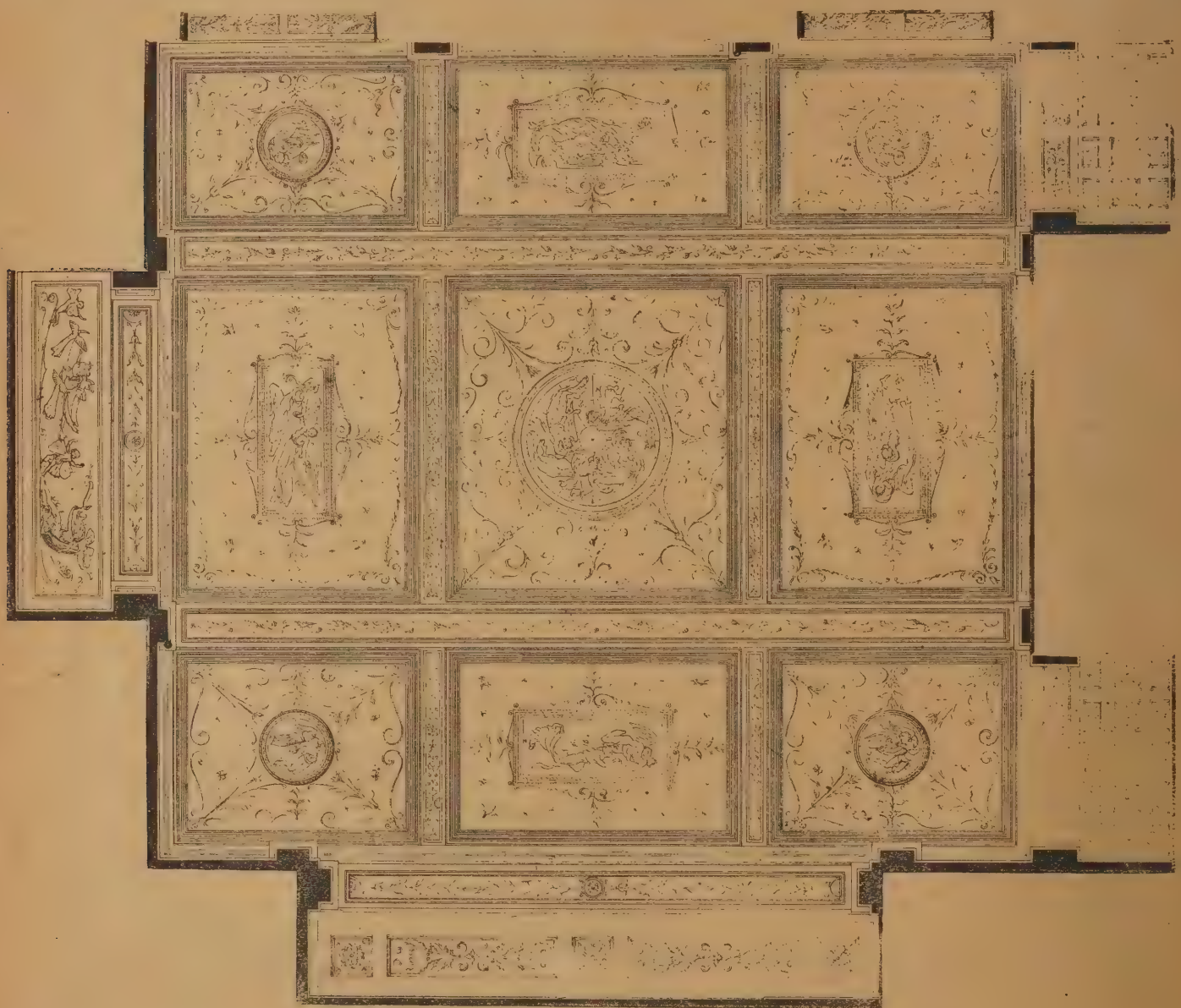
"I think he was, indeed, the most accomplished man of his time, a type so un-English, it is true, as to be unfamiliar, and one which, by its widespread attainment, perplexed all save the people privileged to know him well."

Then Mr. Aitchison falls upon name after name in the Architectural World—even some of the names have passed away—sending out signals of these, of their rigid adherence to line, of their stern faith in their Art, of their *camaraderie*

spirit. And by the natural evolution of talk one is directly back to Palladio and Brunelleschi, and Giotto, and all the early Art influences of the World. Upon the question of the Institute Mr. Aitchison smiled in non-committal fashion, reminding me that he was "only one of sixteen gentlemen, many of whom have strong ideas," and there was a delicate touch of satire in that, one thought, but he said:—

"I am not sure but what the Examination System is not dangerously encouraging 'cram.' Mind you, I am not of Mr. T. G. Jackson's view that examination at all is fatal to Architectural development. Why should it be? The necessity of every man, in his Art or his profession, is that he should know something of its history and its elements. Let us take a very homely illustration: the man who bakes bread. You expect him to know something of the qualities of flour, of the conditions of yeast, of the heat of ovens, of the proper process of baking, and finally, you ask yourself: 'Is this good bread?' But you do not, necessarily, go so far as to demand that your baker should understand all these conditions as implicated in the bakeries of Pharaoh's day."

Professor Aitchison was elected Associate of the Royal Academy in 1881, and from 1882 to 1887 he gave lectures at the Royal Academy, ultimately becoming Professor of Architecture at Burlington House. He is also one of the Examiners in Architecture, and sole Examiner in the Principles of Ornament at South Kensington. The year 1879 saw him made Officer of Public Instruction by the French Government, and the Society Centrale des Architects, Paris, knows him for a Corresponding Member. Your host has gold medals won at the Salon and the Melbourne Exhibition; bronze medals at Philadelphia, Sydney, Melbourne, Adelaide and the World's Columbian Exhibitions. He has travelled much. Every country in Europe has charmed him in turn, he has doubled the Cape of Good Hope; has studied Colour from the Netherlands to Constantinople.



DESIGN FOR CEILING: BY PROF. G. AITCHISON, A.R.A., ARCHITECT.

AN INTERESTING RUIN.

IT is doubtful if there is in Ireland a more interesting ruin than Cong Abbey. Its situation is beautiful, between two great lakes, with a background of some of the wildest mountains in Ireland. John O'Donovan says in a note in his translation of the "Four Masters" that Roderick O'Connor founded and endowed the Abbey of Cong. That a religious house of some kind was founded in it by St. Fechin there can be no doubt at all, for up to a recent period it was known as Cunga Fechin, or Cong of Fechin. It was, like most of the very early Churches and religious houses of ancient Ireland, built entirely of wood, and has consequently long ago disappeared. The Abbey, the remains of which still exist, was founded in 1128 by the Augustinians, during the reign of Roderick O'Connor's heroic father, Turloch. It is an interesting and suggestive fact that most of the great religious establishments of Ireland were not only founded but built in the material that now remains of them before the Anglo-French invasion, showing clearly that that event put a stop to almost everything that could be called progress. The invaders, although professing the same faith as the invaded, were much more anxious to build Castles than Churches. There was hardly a Castle in Ireland before the time of Strongbow. This was not caused by ignorance of the art of building among the Irish, for some of the round Towers and Churches erected long before the time of Strongbow are as perfect specimens of Architecture as were erected in any country at the same period. The native Irish king, or chief, was contented with a wooden house surrounded by an embankment, capped with a palisade of wood; but the Norman raised mighty edifices of stone to protect him from the wrath of those he had robbed. Cong Abbey is a large building nearly 150 ft. in length. Few of the ancient Churches of Ireland are any longer, and many of them are not nearly so long. It would be a mistake to say that the ruins at Cong are in a good state of preservation, for traces of violence and vandalism are apparent almost everywhere on them. The whole place has a dilapidated look. Ivy has prevented great masses of masonry from falling. It is sad to know that there is hardly

an old religious edifice in Ireland that has not suffered from the animosity of so-called reformers. The ruins of Mellifont, near Drogheda, have been torn up from their foundations, so that hardly a trace of that once magnificent Abbey now remains except the of its glory remains" to show that it must have been a

BUILDING OF EXQUISITE BEAUTY.

Some of its floral capitals carved on limestone, are as fine specimens of the carver's Art as can

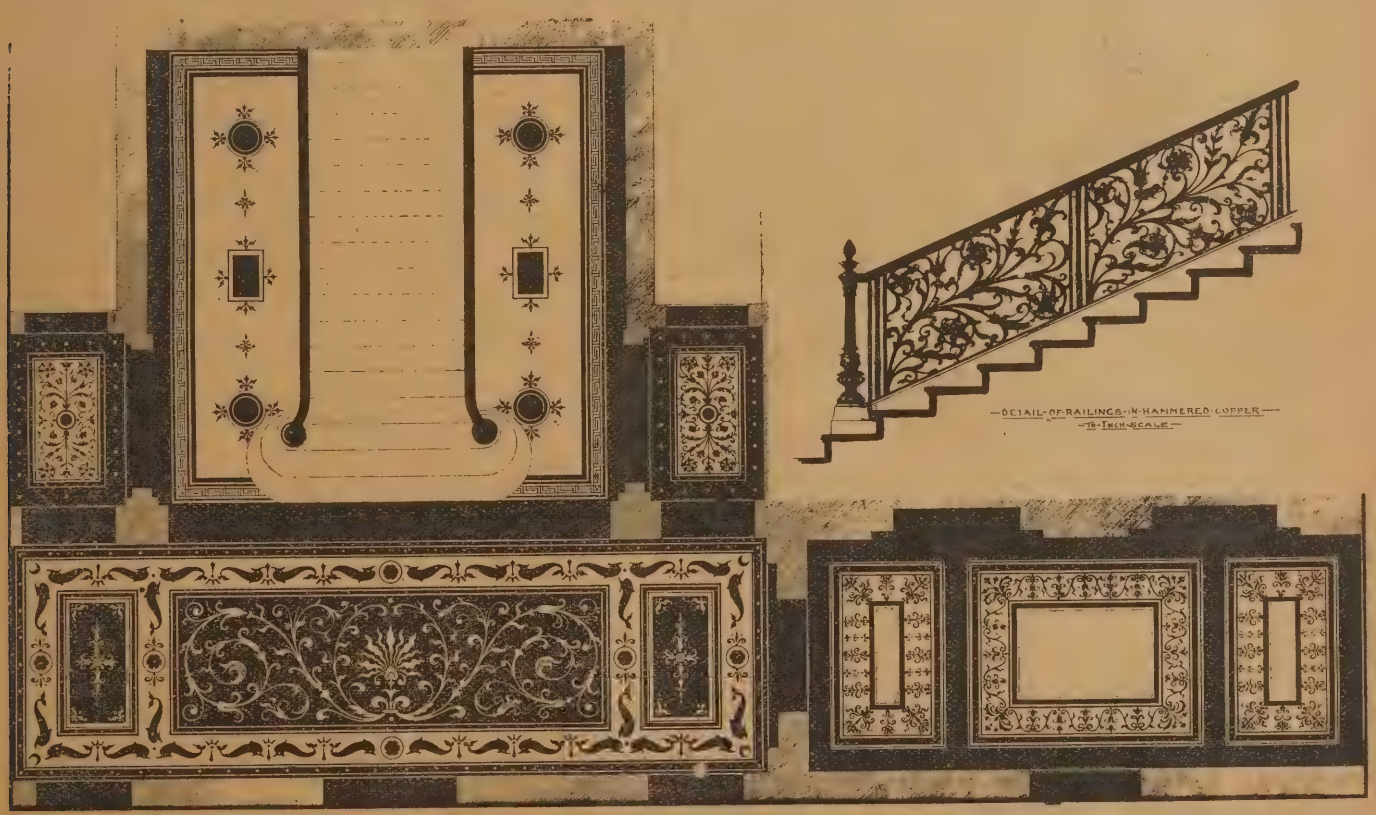


DECORATION FOR SMOKING ROOM: BY PROF. G. AITCHISON, A.R.A.

Crypts and the vast walls and fosses by which it was surrounded. Ruthless vandals tried their best with sledges and hammers to overthrow the great cross of Monasterboice in Louth; but the stone of which it consists was too hard for them, for they only succeeded in mutilating what they could not destroy. In its present dilapidated condition it is hardly possible to form a correct idea of what Cong Abbey was in the days of its splendour. It is almost impossible also to form an exact idea of its general plan, for many comparatively modern additions have evidently been made to it. Its having been used as a burying place within recent times has, as the same thing has done at Clonmacnoise, sadly interfered with its picturesqueness. But, as at Mellifont, "enough be found anywhere in the world. Both Sir William Wilde and Doctor Petrie agree in this. There was probably no Abbey in Ireland that contained more beautiful specimens of the carver's Art than Cong. Vast numbers of its sculptured stones have been defaced by vandalism or carried away to build walls or outhouses. It is not easy to know what was the exact extent of the gardens or mensal grounds of the Abbey, for the walls that enclosed them cannot be fully traced, and are not intact like the walls around the Abbey of Boyle, in the county Roscommon. The Abbey of Cong seems to have been the great depository for the precious things of the province of Connacht. The Order of Augustinians, to whom it belonged, was very rich, and had vast possessions in the province, and it would seem that no Abbey in it was as rich as that of Cong. In it were kept deeds, books, records and many other precious things, all of which have disappeared save the marvellously beautiful Cross now to be seen in the Dublin Museum, and which artists and connoisseurs have pronounced to be "the finest piece of metal work of its age to be found in Europe." It has been gathered from the Gaelic inscription on the Cross of Cong that it was made in Roscommon, for the name of the maker is identified with that town. The fact of such a priceless relic and such a gem of art having been kept in the Abbey of Cong shows that it was considered to be the most important and most secure place in the province. The Abbey of Cong was never plundered by the Danes: if it was, no record of its having been plundered is to be found in the Annals of the Four Masters, or in the Annals of Loch Key. This fact of Cong not having suffered from the Danes would seem to show that it did not contain much wealth during the ninth and tenth centuries, when the mauraudings of the Norsemen were at their worst. If the Abbey of Cong was worth plundering it is hard to conceive how it could have been spared by them. It is probable that the Church founded there by St. Fechin was very small, and that the establishment became important only when the O'Connor family rose to prominence in the province, for it was richly endowed by Turloch and by Roderick O'Connor, both of whom claimed to be chief kings of Ireland.

IT has been decided that the Armenian Martyrs' Memorial at Hawarden shall take the form of a Cross in the churchyard in addition to the stained glass window which is to be placed in the South Aisle of the Church. The material for the pedestal will be contributed from quarries in England, Ireland and Wales, and the Cross itself will be of Scotch granite.

NEW Club Rooms for the Junior Liberal and Radical Association were formerly opened by Commissioner Seymour, at Kilwinning. The new premises, which are substantirlly built of brick with a frontage of stone, consist of a Billiard Room, as also Reading and Recreation Rooms and Keeper's House. They occupy a central position in the town, being situated at Garden Square, and have been erected at a cost of £700.



STAIRCASE AND MOSAIC PAVEMENT, 9, CHESTERFIELD GARDENS: PROF. G. AITCHISON, A.R.A.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
August 12th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

AT the top of Palace Street, Pimlico, and facing the Royal Stables at Buckingham Gate, is to be seen a Church of an old-fashioned pattern. Beside it stands a curious survival—a little country villa—which was left behind or forgotten. It stands at a right angle to the street, and the space in front was clearly a garden, and it has on its face a tablet, with an inscription and date, just over the attenuated porch. The Church has the sort of poorish "tradesman-like" cut that was in favour at the beginning of the century, suggesting a conventicle with an angular and three large windows. This is the "Chapel of Ease" to St. Peter's, in Eaton Square. Entering, we find the old regulation dispensation—a great broad and ugly Gallery running round—after the favourite Wren pattern. The sanctuary, as it may be termed, is a square recess sunk in the wall, richly decorated with a "High Altar" and cross, and other ornaments. At one side is a little Pulpit raised high in the air, and with but little accommodation for the preacher.

IN reply to a question as to whether any conclusion had been come to with reference to the completion of the decoration of the Lobby of the House of Commons, by filling up the vacant spaces on the wall in harmony with Mr. Poynter's mosaic of St. George, Mr. Akers-Douglas said he had been in communication with Mr. Poynter on the subject, but had not yet completed such enquiries as he thought necessary before coming to a decision.

THERE seems to be something of an epidemic for the destruction of the waterfalls of Scotland. All are familiar with the fate of Foyers, and now danger threatens the very beautiful Linn of Corrymulzie, which is a few miles above Braemar, on the estate of the Duke of Fife. The two cases are hardly on the same footing, but if a waterfall is to be spoiled the cause is a detail. The Deeside high road crosses the head of the Linn of Corrymulzie, and every visitor to the locality stops to admire the fall and linger over its widely known charms. But just at present there is an ominous pile of black iron pipes lying near by. It appears that the power of the stream is to be utilised in order to generate a supply of electricity for the new Castle which the Duke of Fife is building at Old Mar Lodge. The Duke of Fife would no doubt say that by such a scheme he preserves the Linn of Corrymulzie, while at the same time he gets electricity. He might wish to add that Highland homes like Mar Lodge are usually in full occupancy only during the autumn months, and that for the rest of the year there would be little, if any, call on the electric supply. But the position goes further—much further. There is no great body of water flowing over the falls, but just an average sized burn such as may be met with between any two Highland hills. Given a 12-inch water pipe pouring out of a reservoir, a 30 or 40 horse-power turbine to drive, a big Palace to light, most likely to heat also, even if the electricity is not to be called in for cooking purposes—given these things, and the Linn of Corrymulzie will, it is to be feared, almost be dry.

KNEBWORTH, the home of the Lyttons, amid shrubberies and gardens raises on high its quaint gables, its twisted chimneys, and its heraldic griffins. The Hall, indeed, does not strike one with a sense of grandeur, nor would it were it four times the size. It is not architecturally beautiful, but it is intensely quaint, resembling in its rococo style one of those weird châteaux of Touraine which Gustave Doré loved to depict. Within, the fantastic idea is still further carried out, and the heraldic banners mingle in the apartments with coats of arms and arabesques. Close by the Hall is the Church, with its square Tower, Norman archway, and the various styles which have become blended by time and necessity into one picture whole—a Church such as Washington Irving would have delighted in, and Birket Foster place with effect in any one of his charming compositions. The principal grave is by the left of the Porch, and a grey stone cross tells us it is the resting place of the mother of Lady Lytton, Elizabeth Charlotte Villiers, widow of the Hon. Edward Ernest Villiers, who died on April 14th, 1890, at the advanced age of 82 years. But if the Church be attractive outside, it is even more so within. The narrow Nave is lined on each side with old black oak seats, the Lytton family pew being immediately opposite the finely-carved pulpit, dating from 1567, embellished with incidents from the life of the Saviour; while the beautiful painted glass windows beside it representing the text, "Suffer little children to come unto Me," were put to the memory of two little sons lost in infancy by the late Lord and the present Lady Lytton. To the right of the Chancel, looking down the Nave, is the Mortuary Chapel of the Lyttons, containing an interesting collection of monuments, brasses, statues, and hatchments. The space is small, but every inch has apparently been made available. Some few hundred yards beyond the Church, and farther from the Hall, stands a small, gloomy-looking stone erection of Classic design, surmounted by a sculptured sarcophagus. Over the main entrance are the Lytton arms, and above them the inscription: "This Mausoleum was erected by Mrs. Bulwer-Lytton, and consecrated by the Lord Bishop of Lincoln, the 31st of May, 1818."

FEW parish Churches have undergone the ordeal that Sittingbourne Church has without curtailment, which was at one time imminent, or the total rebuilding in an unsympathetic style. The existing building is traced from a smaller Romanesque beginning, the only portions of which now standing above ground are the eastern and western walls of the Transept, and part of the pier mass; the first enlargement of the early Church took place in the thirteenth century, near that portion of the Chancel which includes the mural arcades and the lancet windows. The Lady Chapel was erected by Simon of Chilton, early in the fourteenth century, and the Tower was increased in height from a well marked place in the fabric. In July, 1762, a great catastrophe happened. The whole of the roofing was destroyed in an hour "by a plumber's fire during a high wind, and this stately building, hitherto little injured by fanatical violence, with all its ornaments and most of its furniture was destroyed, the exceptions being the bells, clock, and chimes." It stood in complete ruin for over two years, in consequence of delay concerning the four Chancels. In the following December the Parochial Committee, that had been immediately appointed after the fire, and empowered by the parishioners to "speedily rebuild and ornament the Church," sent Mr. George Dance, one of the most celebrated Architects of the day, to visit the Church. He reported to them that, in his opinion, the pillars, walls, and arches were strong and good, and fit to be built upon, Under the direction of one John Baykett, of Milton, the Nave and Aisles were repaired at a cost of £488.

AN Exhibition of Mediæval Art, which has been organised by the Society of Antiquaries, and which can be now witnessed in their rooms, is one of surpassing interest. From the very nature of the Exhibition much that is of great excellence throughout the country is absent from the collection. Wall paintings, for instance, which are part of the edifice, furnish a case in point, but their absence is well supplied by carefully executed and coloured drawings of the frescoes of our great Cathedrals. These are satisfactory substitutes under the circumstances, but the student will, no doubt, turn to the specimens of original work, of which this Exhibition is full—portraits, panels, rood screens, illuminated missals, and service books, illuminated manuscripts, some Middle Age volumes, and other treasures, drawn both from ecclesiastical and private sources. From the Norwich Cathedral, for instance, comes a beautiful Reredos of 1380; from Winchester came some panels; from Westminster the famous painted table of 1270; while there are a striking series of portraits of our Edwards, Henries, and Richards. The Duke of Northumberland sends some MSS. from Sherborne Abbey; the Duke of Devonshire sends St. Etholwold's Benedictional of the date 970; and Mr. Wm. Morris and the Duke of Westminster lend several volumes, dating between the twelfth and the fourteenth centuries.

LAST April the Louvre at Paris bought for 250,000 francs a wonderful tiara that purported to have been found in the Crimea. This tiara (as an inscription upon it declared) had been presented by the inhabitants of Olbia, the Greek colony on the Black Sea, to a Scythian king called Saitaphernes, to buy off his invasion. It was adorned with representations of Homeric legend, and a splendid necklace and earrings were thrown in. We now learn that the gold may have come from Johannesburg, but is certainly not Greek; every one of the decorations has been traced remorselessly back to the books on Greek or Scythian antiquities from which they were copied. The Greeks are made to present the King to the tiara, instead of the tiara to the King. Finally, a Russian scholar says that the tiara was certainly manufactured at Oschakow, which is a Russian rival to Birmingham in the manufacture of antiquities! The Louvre authorities are feebly expostulating that the "find" is genuine, and unsuccessfully endeavouring to find the man who sold it to them.

AN interesting relic of old London will shortly be on view in the Central Court of the South Kensington Museum. This is the carved oak fireplace that formerly stood in the Dining Hall of the old "Palace" of James I. at Bromley-by-Bow, which was pulled down some time since to make room for a Board School. The woodwork, which was thickly covered with paint and dirt of years, has been most successfully treated, and now looks as fresh and sharp as if it had been carved yesterday. The Royal arms—the English lion and Scottish unicorn—are singularly beautiful examples of carved work; and the chimneypiece as a whole is among the most perfect specimens of Jacobean internal Architecture to be seen in London. The date is about 1604. The ceiling and panelling of the room, which have also been obtained, are worthy of attention, the designs being of high merit and the wood well preserved. A cast of the chimneypiece of old Crosby Hall is among the other and more important recent acquisitions of this kind obtained for the Art Museum.

THE range of farm buildings known as Old Walls at Bishopsteignton were recently gutted by fire. The buildings, which consisted of cattle sheds, linhays, pound-house, and barns, formed three sides of a square, while the fourth side is occupied by the remains of the ancient private Chapel of the mediæval Bishops of Exeter, who had their residence here. Fortunately this interesting relic has suffered no damage. It is thirteenth century in character. The east and south walls only are standing, the former being pierced by three narrow lancet windows, while the south wall has windows, doorway, now walled up, and the remains of a holy water stoup on the inside face of the wall. Lysons says that Bishop John de Grandisson mentioned this residence in a letter written to Pope John XXII. in the early part of his episcopate, in which he says that there were fair buildings at Teignton, but that the temporalities of the See had been so often seized by the Crown, and on such occasions the houses had been so injured and dilapidated, that the Bishop had nowhere to lay his head. Bishop Bronscombe is known to have occasionally resided there, and ordinations were held in the Chapel.

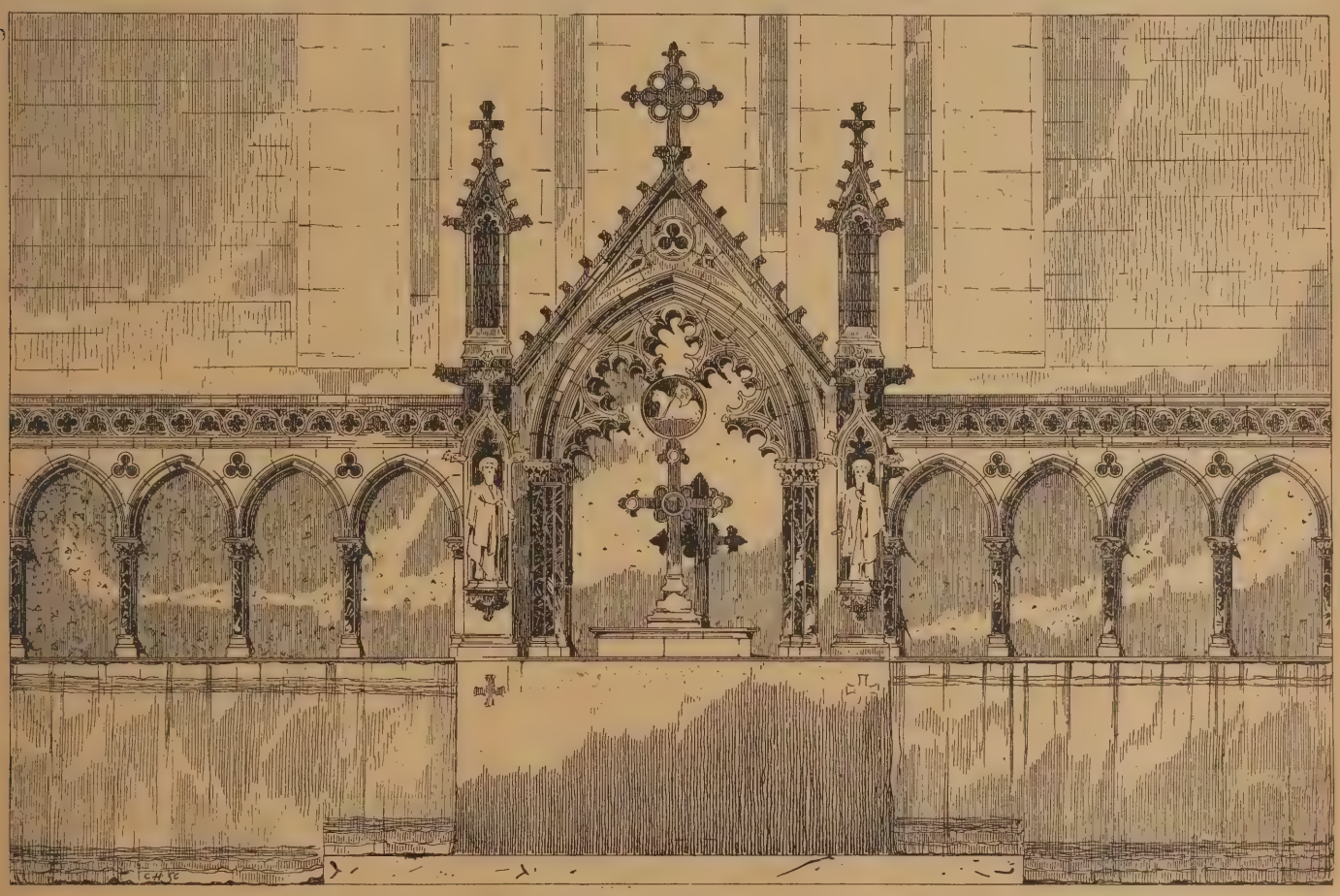
THE proposed Memorial of the late Archdeacon Bardsley is to take the form of a thorough restoration of the Bradford Parish Church. Messrs. T. H. and F. Healey, Architects, will make a careful inspection of the structure, and a report will be prepared as to the best way of carrying out the restoration and the probable cost of the work recommended. It seems to be taken for granted that, if the structure is to be dealt with at all, it will be necessary to take down both the remaining Galleries. That measure would, of course, substantially reduce the accommodation offered by the Church, and the next question would be the consideration of means of making up for this loss of seating. Some little difficulty will be felt in dealing with the latter aspect of the matter, inasmuch as an extension on the north side would involve the removal of a large portion of the older part of the structure, whilst, on the other hand, an extension on the south side would occasion the pulling down of a portion of the Church which is of later construction, and is in good condition. It is desired to retain as much of the old building as can reasonably be preserved, but if the subject is looked at merely from the utilitarian point of view it would undoubtedly be of greater service to the structure to carry out the extension on the north side.

THE Church of Chart-next-Sutton, Valence, was unfortunately struck by lightning and burnt down about 120 years ago, the Tower alone escaping. In that careless age, when little was thought either of reverence in worship or beauty of Architecture, the parish authorities were content to put up four bare walls and a roof, and the Church is said to be the only one in Kent without a Chancel. An attempt is now being made by the parishioners to restore the building to a condition more suitable to its purpose. Their means, however, are limited. The bulk of the tithe goes to the Ecclesiastical Commissioners, who, although thus the lay rectors of the parish, deny any liability to rebuild the Chancel, and without this it would be almost impossible to make anything of the rest of the Church. Chart Sutton has been for 600 years in the unfortunate position of contributing large sums yearly in the shape of tithes for the benefit of other people. Originally they were handed over to Leeds Abbey, and at the Reformation transferred to the Dean and Chapter of Rochester, but in both cases with strict conditions as to the repairing and rebuilding the Chancel as often as necessary. This duty the Chapter managed, after the fire, somehow to evade, and this is now pleaded by the Commissioners as releasing them from any liability. They offer a subscription, but as a favour—not as an obligation. The bazaar and fête, which it is proposed to hold at Chart next month, will, it is hoped, furnish the means of opening the Tower-arch, which is still perfect, and showing a very beautiful west window, and also of removing the unsightly plaster ceiling and of uncovering the oak beams above it. If the negotiations with the Commissioners, which are still going on, end favourably, there is hope of changing a peculiarly unsightly edifice into a neat little country Church.

FOR the first time for several centuries the historical Bredenstone will be dispensed with at the installation of the Marquis of Salisbury as Lord Warden of the Cinque Ports on the 15th of this month. After the preliminary ceremony at Dover Castle, in the ancient Roman Church of St. Mary's-in-the-Castle, the Court of Shepway, at which the ceremony of installation is to take place, will be held in the Dover College Close, instead of at the Western Heights, on the site of the Bredenstone. The stone, which is carefully fenced in, is situated in the Drop Redoubt, and although an uninteresting object to look at, is zealously guarded as a landmark of the country's history.

A MOST interesting landmark in the West End is now being removed, and one which will be much missed. It is impossible for anyone to walk down Regent Street without having his attention arrested by the bold and finely-proportioned Portico of Hanover Chapel, which projects over the pavement just where the street begins to curve away to the north. Few buildings in London are so happily placed, and few are so worthy of such a fine site. Hanover Chapel was built some sixty years back by the greatest classical Architect of his century—Professor Cockerell, R.A.—and this Portico is certainly the best example of revived Greek Architecture in this country. From an artistic point of view its destruction is an irreparable loss, and when it is gone thousands will realise the fact that they have lost a real architectural gem.

AT a recent meeting of the Belfast Corporation, the question of the construction of houses, especially with regard to the floors, hearths, and staircases, was strongly commented on by Mr. Barklie, who referred to a fire which recently occurred on the Albertbridge Road, and which resulted in the loss of one life; and he said he had it on the strongest statement of the Superintendent of the Fire Brigade that, had it not been for a flat roof on a building behind, three additional lives would have been lost—lost on account of the bad construction of the house, the plans for which were passed as recently as November, 1895. The house, which had a 28-foot frontage, had only a single brick dividing any of the apartments of the house, which was practically a three-story building, except a single bit of wall that divided what was intended to be a confectioner's shop in the front from the room behind. The rooms on the first floor of the house were entirely separated by wooden partitions or lath and plaster walls, and the staircase was supported in part on the studs of such a wall. It was a great mercy that it was a lath and plaster wall, as otherwise all the people in the house would have been consumed. It appears that twenty-four fires had occurred in the city during the past year from circumstances connected with the bad construction of the houses, from defective hearths and defective flues—from the construction of houses on the matchbox principle.



Scale

REREDOS, ST. PETER'S CHURCH, PONTARDAWE: MESSRS. WILSON AND MOXHAM, ARCHITECTS, SWANSEA.

AT Shooters Hill, the Hospital, which is the first of three to be provided by the Metropolitan Asylums Board to meet the growing needs of London in respect of accommodation for fever patients, is almost completed. The Hospital, which is admirably situated, will afford accommodation for 488 patients. There is space for bringing up the accommodation to 506 beds; and the hospital staff is expected to number 325. The general plan of the Hospital has been arranged upon the principle of keeping the administrative buildings as separate and distinct as possible from the wards and their appurtenances. By this arrangement the nurses and others of the staff, when off duty will be free from the ordinary hospital surroundings. There are twelve main Ward Pavilions—eight for scarlet fever and four for enteric fever and diphtheria—each being two stories in height, with an open space varying from 4 ft. to 8 ft. in height under the ground floor. The Isolation Pavilions are very similar to the main Wards. The arrangements include Airing Courts, Discharge Wards, a Mortuary, Administrative Buildings, "Homes" for the nurses and servants, Laundries, &c. A Water Tower has been erected, with a storage tank capable of holding 20,000 gallons, this tank being filled without pumping by the ordinary pressure of the water company. As the water of the Kent Water Company is somewhat hard, a water-softening apparatus has been provided, capable of softening 60,000 gallons per day of ten hours; but the water mains have been so arranged that water to be employed for drain flushing or fire-extinguishing will not be softened. The fire-extinguishing appliances, heating apparatus, electric lighting, telephones, and alarms, are all on the latest principles. The cost of the Hospital, including all fittings, apparatus, and machinery, but exclusive of land and furniture, has been £240,000 The Architect is Mr. Thomas W. Aldwinckle, and the building contractors employed upon the works are Mr. C. Wall, of Chelsea (who had five-sixths of the whole); Messrs. H. Wall and Co., of Kentish Town; and Messrs. Shillitoe and Son, of Bury St. Edmunds.

DOMESDAY survey does not mention a Church at Bredgar, Kent, but the moulding of the western doorway, now in the Tower of the Church dedicated to St. John the Baptist proves that a Norman Church existed here before the middle of the 12th century. From the existing Architecture it may be inferred that the Norman Church was not used during more than 250 years, from about 1140 to 1390. Nor did it remain so long as that unaltered. In the walls there are four or five windows of the Decorated style, which must have been inserted in the Norman walls, and again used when the present walls were set up. The Church was erected to assume its present plan and appearance about 1390 or 1400. One of the prominent features of the Church when it was first completed was a long rood screen. Not a trace of it now remains. There is a brass monument to a priest named Thomas Coley, who was Master of the College of the Holy Trinity, at Bredgar, and died in 1519. Records of Canterbury Priory and of the archiepiscopal see say that in the 16th year of Richard II., July 19th, 1392, a good clergyman who was learned in the law founded and endowed a small College here, to consist of three members, namely, a chaplain who was to be master, and two scholars, clerks.

AT Worcester Cathedral the dedication services in connection with the new electric organ recently took place. This electric organ is the first of its kind erected in a Cathedral, and is said to be one of the most powerful Cathedral organs in the country. The new instrument, the construction of which is the work of Mr. Hope-Jones, of Birkenhead, will supersede the great organ which stood in the south Transept and the organ in the north Choir Aisle. Hitherto all organ tone has been produced from two classes of pipes—the fan and reed—but in this one is introduced for the first time a new method of producing tone. This consists of a soft valve, moved by a motor and governed by a resonator. The organ is divided into three portions. The "swell" is placed beneath the arch immediately behind the Cantori Choir stalls; whilst the "great," and the "choir," and a portion of the "pedal" are in a similar position behind the Decani stalls. The enclosed "solos," and the main "pedal" organs rest against the southern wall of the south-west Transept. The large and handsome case of the former Nave organ (the gift of the late Earl of Dudley) has been moved back so as to screen these latter departments, and at the same time has opened to view the fine Norman arch between the Transept and St. John's Chapel. For the organ-loft is substituted a portable "console," placed just within the Chancel Screen on the Cantori side, the Chancel Lectern, which formerly stood there, having been removed to the middle of the Aisle. This "console" is connected with the various parts of the organ by means of a single flexible cable, 1½ in. in diameter, and is mounted on castors and enclosed in a handsome carved oak case. The cost of the new organ is £3,000. The cost of the two organs which it replaces was £11,000. The wind for the organ will be supplied by a new form of iron-blowing machine, driven by an alternating current electric motor. There will be no bellows in the ordinary acceptation of the term. The current which communicates between the key desk and pipes is produced by dry cells.

LOVERS of the Forest of Dartmoor should be glad to hear that the subject of its purchase from the Duchy of Cornwall has been seriously taken in hand. The initiative of this action seems to have come from the "Dartmoor Preservation Society," but it is rumoured that the Devon County Council has already approached the Duchy upon the question. The present time is certainly an auspicious one, for the long-period leases which the Duchy has granted to private individuals are shortly to expire. Certainly there are impediments in the way, for an Act of Parliament would be necessary to authorise the Devon County Council to purchase, and it is quite possible that the Duchy, in view of rights of mining, which seem to be prized perhaps in excess of their value, may be less anxious to sell than the representatives of the county to buy. Still, not only Devonians, who draw their drinking supplies largely from the Mother of Devonshire waters, and archæologists, who lament the yearly disappearance of prehistoric huts, circles, and kistvaens, but also the greater public who have climbed her hills and fished her streams, will probably join in hoping that the renewed public discussion of the matter before the Devonshire Association at Ashburton will not be allowed to end merely in talk.

A SCHEME is on foot to secure Fortune Green, Hampstead, as a public recreation ground. The land is situated in West End Lane, Hampstead, and has an area of about 2¼ acres. It is about a mile from the nearest point of Hampstead Heath. At one time, as the land was unenclosed, it was supposed to be public property; but the owners have now established their rights to it. The price asked for the land is £8,000, towards which the Vestry of Hampstead have promised to contribute £3,000 and the London County Council has agreed to contribute £3,000 on the understanding that the balance of the purchase money would be found by the Hampstead Vestry and private subscribers.

UPON the recommendation of the Improvements Committee, the London County Council has recently sanctioned the expenditure of several sums of money upon street improvements in various parts of the metropolis. In one case it has agreed to contribute £3,600, three-fourths of the net cost of widening Robin Hood Lane, Poplar, at the junction with High Street. The eastern side of Robin Hood Lane is about to be set back in connection with the formation of a northern approach to the new Blackwall Tunnel, and it has now been decided that the houses on the western side of the road at its junction with High Street shall also be set back, so as to increase the width of the road from 30 ft. to about 50 ft. The opening of the Blackwall Tunnel, it is pointed out by the Poplar District Board, would cause a large amount of traffic to pass along this thoroughfare, and, although the road will chiefly accommodate through traffic, they are willing to contribute one quarter of the cost of the widening. The Council has agreed to expend £300 on widening High Street, Tooting, and £600 on widening Merton Road, Tooting. A suggestion has also been made, the consideration of which has been postponed, that the Council should expend £1,760 on the acquisition of sufficient land on the eastern side of Wellington Street, Strand, at Nos. 138 and 138a, Strand, to widen the thoroughfare to 80 ft. It has already been agreed to widen the Strand at the corner of Wellington Street, and the present suggestion is in continuance of that improvement. It is proposed that in the event of the National Telephone Company, which has acquired these premises for increasing the size of its building at the corner of Wellington Street, being unwilling to sell at a reasonable sum the land necessary for the widening, the Strand District Board should be asked to acquire it compulsorily under Michael Angelo Taylor's Act on behalf and at the cost of the Council.

THE directors of the M.S. and L. Railway Company, in the course of their half yearly report to the shareholders, refer to the progress of the new line to London. They state that they have again been over the works very recently, and were gratified at the manner in which they are proceeding. The engineers' report on the Northern Division of the new railway works states: A considerable portion of this length is now formed, and is being trimmed, bottom ballasted, &c., in preparation for the permanent way. The number of men employed is 4,167, locomotives 50, steam navvies 21, and 128 horses. Out of 5¾ millions cubic yards of excavations, 4 millions, or over two-thirds, have now been removed to embankment. Of the seven large viaducts upon the division, four are completed, and of the remaining three that at Bulwell is also nearly completed, and those at Nottingham and Leicester are both in an advanced state. Out of a total of 170 bridges, 143 are in various stages of progress, most of them being actually, or very nearly completed. The steel work for several of the larger bridges is either in process of erection, or well forward in the maker's yard. Most of this, it is anticipated, will be completed during the next six months. Out of a total of 120 culverts, 115 have been commenced, all of which are entirely, or very nearly completed. Of the five tunnels upon this division, those at Sherwood Rise, East Leake, and Dunton Bassett are finished except the fronts. The new bridge and subway which will form the approach to the railway station at the bottom of Ely Lane, Lutterworth, is being rapidly pushed forward. Rather more than one-half the arch lining of the Mansfield Road and Victoria Street tunnels in the town of Nottingham is also completed. Twelve miles of permanent way (single line) have been laid. Assisted by the fine weather during the half-year, rapid progress has also been made with the works of the Southern and Metropolitan Divisions. The number of men employed is 5,454 with 47 locomotives, 18 steam navvies, and about 100 horses.

IN the report of Mr. Francis Fox, the engineer to the Snowdon Railway Company, referring to the accident a short time since, he states:—"We have found from personal enquiries in Switzerland since the accident, that cases of rack-mounting have occurred on several lines, both 'Abt' and 'Riggenbach,' and that the foreign engineers had themselves come to the conclusion that additional safeguards are necessary to keep the pinions of the engines and carriages in the rack, the brakes then being thoroughly efficient. Having, with the approval of Major Marindin (Board of Trade Inspector) and Sir Benjamin Baker (consulted by the contractors), determined what form of protection to recommend, we consulted Mr. Hall, of Lausanne, the Winterthur Company, and Herr Locher, of the Pilatus Railway, and received their approval, the final design being settled with the Winterthur Company, who are supplying the necessary attachments. The board would not, in our opinion, be justified, after what has occurred, in permitting the tram road to be opened for public traffic until the safeguard has been added, as there is certainly an element of danger at present, especially in descending the hill, should there be any irregularity in the permanent way."

DURROW ABBEY, recently visited by the Royal Society of Antiquaries, situated four miles from Tullamore, on the road to Kilbeggan, is well worth a visit. The demesne contains the ruins of a famous Monastery, founded by St. Columbkille A.D. 553. Portions of the walls of this ancient monastic retreat are still in a good state of preservation, as is also a great Celtic cross, said to have been brought from Clonmacnoise by the saint. Here also the famous "Book of Durrow" is said to have been written. Close by the ruins of the Abbey is St. Columbkille's Well, the waters of which are credited by the people of the adjoining country with miraculous properties. Some years ago the agent of the property, Mr. Toler R. Garvey, J.P., had a nice stone covering built over the well, which previously had been allowed to fall into a neglected condition, and a stone slab bears the inscription: — "St. Columba used this well when he preached the Gospel, and built an Abbey near it.—A.D. 553." The old graveyard surrounding the ruins was held in great veneration as a place of interment, but had to be closed some years ago owing to overcrowding. The Abbey was suppressed in the reign of Henry VIII., and in 1560 was handed over to Nicholas Herbert, who was endowed with the lands and tithes. About 1770 the present residence of the Toler family, which is a handsome and imposing limestone structure, was erected by a Mr. Stepney, to whom the property had descended from the Herberts, and the mansion was subsequently enlarged and improved by Lord Norbury, ancestor of the present owner, who acquired the estate.

EVERY commendation must be awarded to the County Council for the excellent results of some of their innovations on Hampstead Heath, and the benevolence of the intentions which have prompted them in others. The recent resolution of the Parks Committee to preserve the Heath as far as possible in its natural state is wholly praiseworthy, but it does not go far enough, since there exists something to be undone. Unfortunately, in providing some nine thousand trees, it does not appear to have occurred to the Council that the planting and artistic arrangement of trees is a matter of taste no more at the command of every public body than it is the endowment of every individual. The result is that mingling with the wild natural beauties of London's great northern playground is to be found an incongruous assortment of young trees, many of them planted so as to disfigure rather than to beautify the scene. So far as any addition of the kind might have been necessary, it should have been placed in the hands of experts, and it is in no unreasonable spirit that public opinion demands that some person or persons of taste, and, we may add of experience, should be appointed to overlook all work done on the Heath, and especially to rearrange, as far as possible, the position of the misplaced trees.

SIR GILBERT SCOTT, writing of St. Mary's-in-the-Castle, Dover, said that it was the most perfect of any pre-Norman Church in existence in England. "There is no question whatever," he says, "as to its belonging to that variety of Romanesque Architecture which we know on the fullest evidence to have prevailed in this country before the Norman Conquest. I know that there is no Saxon period early enough to satisfy the cravings of some of the investigators of its history, who are disposed to carry it out of the Saxon into the British period. I will content myself with a strong opinion that it is Saxon." One of the most eminent authorities on the subject holds that the Church was built as far back as the middle of the fourth century, and that it was originally a memorial to the first English martyr, St. Alban. Be that as it may the annals of the Castle show that it has been in existence and has been used as a military Chapel for many centuries. Of course, so ancient a building as this has passed through many troubles, and for a considerable period the military authorities used it as a store and coal house. In 1860, the funds being supplied by the House of Commons, however, the work of restoration was commenced, and in 1862 it was re-dedicated by the Bishop of Sierra Leone. Sir Gilbert Scott, with the discretion that one is bound to admit did not characterise all his work, left "the ancient parts without attempting to cover them either with plaster or other method of decoration." The west and east arches of the lantern are unquestionably the original work. The Church is cruciform, the Tower being in the centre, at the intersection of the Nave and Transepts. A doorway, too, is clearly, if not earlier, at any rate Saxon. The sedilia and piscina are also very interesting, though much later, being very fine specimens of early thirteenth century Architecture. A small window at the west end is a very curious feature, and one which shows that religious faith was a matter of no small importance when the Church was built. This window commands a view of an Altar in the south-east corner of the Nave, and at all times of the day and night voluntary sentinels—a sergeant and one guard—elected each day by the garrison were placed on duty to watch this light before the Tabernacle.

IF the book "Made in Germany" does nothing more than draw public attention to the fact that foreigners are evidently quite as able to manufacture machines and other industrial products as we are, it will do a great deal of good. We have heard an English practical engineer say that he never saw cleaner ironwork in his life than he saw at the last French International Exhibition, and his opinion is by no means singular. The French are great as engineers and mathematicians; the modern art of war was largely developed by them, as many of our military terms will show; they originated what we mistakenly call "Gothic" Architecture. In physical science they are at least equal to the English and German, and they have a reputation for the construction of the finer scientific apparatus, such as telescopes, which is unsurpassed, if not matchless. It was true for a time, no doubt, that England had the start in industrial matters; but the early days of steam engines, railways, and telegraphs are past, and other nations are now successfully competing with, and sometimes excelling, her.

A MEETING of the council of the National Trust was held recently at 1, Great College Street, Westminster, Sir Robert Hunter presiding. There were present among others Miss Octavia Hill, Miss Harriot Yorke, Mr. A. Waterhouse, R.A., Mr. K. Goss, Professor Baldwin Brown, and Canon Rawnsley. It was reported that, up to the present, £194 had been received or promised towards the sum of £505 required for the purchase of Barras Head, the well-known headland which commands the best view of Tintagel Castle, and it was decided to again urge the public generally, and Cornishmen in particular, to enable the Trust to secure the Head for the nation. It was also reported that only £96 of the £350 required to preserve the well-known Alfriston old pre-Reformation Clergy House had been received, or promised. This included a sum of £25 which Miss Octavia Hill has promised to give, on condition that £150 is raised in time to allow the work of repair to be proceeded with before another winter causes further damage to the building. The monument commemorating the deaths at the Battle of Newbury of the Earl of Carnarvon, Lord Falkland, and Lord Sunderland (the husband of "Sacharissa"), raised in 1878 at a cost of over £800, on a site given for the purpose by Mr. Walter Money, F.S.A., has been offered to the National Trust by the sole surviving trustee, Mr. W. G. Mount, M.P., in order that it may be permanently secured for the nation. The council decided to accept the trusteeship.

THE restoration works which are being carried out in the Norman Church at Aldermaston, near Reading, at the cost of Mr. Charles E. Keyser, who purchased the Aldermaston Court estate two or three years since, are disclosing some features of great antiquarian interest. The old Church was originally a Chapelry of Monk Sherborne Priory, which was situated between Aldermaston and Basingstoke. The Norman work which remains dates from the twelfth century, and on the stonework of the Norman doorway have been found carved a number of well-cut votive crosses. In dealing with the south Transept, known as the Congreve Chapel, some most interesting wall paintings have been brought to light, the most distinct of these being a well-defined full-length figure of St. Christopher, who is depicted as crossing a stream bearing the Infant Christ. On the other side of the chantry window there are represented two figures, one being in kneeling posture, and the other an angel descending, with a mitre, while above is drawn some fine canopied work. The side wall is found to be decorated with a series of paintings, the subjects of which have not as yet been clearly defined. In removing the plaster in the Nave, the Decalogue, in well-written old English characters, has been uncovered.

AT Glasgow the opening of New Rutherglen Bridge was the chief event last week. The bridge has been erected by the Joint Bridges Committee of the City of Glasgow, the Burgh of Rutherglen, and the County of Lanark, to replace an old structure erected in 1775. That bridge was of masonry work, and had five arches of simple design. It cost only £2,000, but the foundations were inadequate, and it was exceedingly narrow, being only 16 feet 6 inches between the parapets. It was finally closed in April, 1890, and in the interim the traffic has been conducted by means of a substantial service bridge. Plans of the new or permanent bridge were submitted by Messrs. Crouch & Hogg in January, 1891, and the consent of the Board of Trade, with a conveyance of that Department of the foreshore and bed of the river, which is here tidal, having been obtained, alternative specifications were prepared, and relative tenders by contractors advertised for. The offer of Messrs. Morrison & Mason, Limited, was accepted in January, 1892. Operations were commenced by the contractors in February of the following year, and the memorial stone was formally laid in June, 1895, by Councillor John M'Farlane. The new structure consists of three segmental arches, the centre one having a span of 100 ft. and a rise of 12 ft. 6 in., and those on either side of it a span of 90 ft. and a rise of 11 ft. 7 in. The clear width between parapets is 60 ft.—a roadway of 36 ft. wide and two footpaths of 12 ft. each. There is ample room for two lines of tramway, as well as for the ordinary traffic, and the gradient of the approaches is 1 in 60. The arches are of granite, and the abutments, spandrils, and piers are faced with granite supplied from Aberdeen, Dalbeattie, and Cornwall. The courses are chamfered and the piers are formed with starlings or cutwaters at either end, surmounted by massive caps, from which pilasters are carried up between the arches, and there are larger pilasters at the abutments. A bold cornice, with classic mouldings runs along the whole length of the Bridge, and is carried through the abutment and pier pilasters, and the parapet, which is solid, rises above this. Being built of granite, no ornamental work in the shape of carving has been attempted, but the endeavour has been to obtain a satisfactory Architectural effect by a well-proportioned and graceful outline. The total estimated cost for ground and approaches, construction of the new and removal of the old Bridge, including engineering, &c., fees, inspector's wages, and miscellaneous, was £70,000, of which the county of Lanark contributed a sum of £12,000, the burgh of Rutherglen £5,104, and the city of Glasgow the balance of £52,895.

THE design of Messrs. Bodley and Garner for a Memorial, to be erected by public subscription to the late Bishop Durnford in Chichester Cathedral, has been approved by the Executive Committee. It is to cost £2,000 and will consist of an Altar Tomb of Clunch, having square tracery panels divided by panelled niches of Purbeck marble, containing shields bearing emblems of the Passion. The Tomb will have a moulded base and slab of Purbeck marble, and upon the slab will be a recumbent effigy of the bishop in episcopal habit, and executed in alabaster. Above this will be a rich canopy of Clunch. A separate Memorial, subscribed for by the late bishop's confirmation candidates, will probably take the form of a new reredos and stained glass window.

CHURCH STREET, West Hartlepool, is to be the site of the Statue which Mr. Onslow Ford, the eminent sculptor, is executing of the late Mr. Ralph Ward-Jackson, the founder of the town, at the cost of Colonel Cameron, who will present it to the borough. The locality is, perhaps, not the best that could be chosen for such a purpose, but it appears to be the general wish that the Statue should be placed in some portion of the town familiar to the late Mr. Ward-Jackson during his lifetime, and the site at the head of Church Street, which overlooks the Docks, which gave West Hartlepool its start, is deemed to be most suitable.

IN dark and dismal rooms at Spring Gardens are stored away many interesting records of the early Government of London, before it knew a County Council, or was vexed with unification, and distracted with improvement schemes that never get beyond discussion. Admirably preserved as these documents have been by the Council's Record Keeper, Mr. Dickens, they have hitherto been uncatalogued, but that defect has been remedied by Mr. G. L. Gomme, the Chief Statistical Officer, who has compiled an excellent index, which future historians will find of inestimable use. Many of the records relate to the minor details of local administration; but they extend as far back as the reign of Elizabeth, and some of the entries give amusing glimpses into the customs of those days. In the minutes of the Surrey and Kent Court it is recorded that Queen Elizabeth was ordered to repair "walls and banks adjoining and about the Queen's slaughter-house at Deptford," which were said to be "in great ruin and decay." The Court gave instructions that a letter should be sent to the Lord Treasurer, "to the end that he may be rectified how the case standeth and that some redress may be had for the same." The letter explains the necessity for having the walls and banks new made, without which speedy performance "great dommage and hurte will accrue to Her Majesty and Her Highness's subjects." It is satisfactory to note that according to a subsequent entry the Queen was not above unbending from great affairs of State, or of the heart, to take an interest in ruined and decayed walls at Deptford, which were satisfactorily restored and "great dommage and hurte" thereby avoided.

WE beg to notify that the premises in Great George Street in which the offices of the Tribunal of Appeal are situate, being about to be rebuilt by the Surveyors' Institution, the offices of the Tribunal will be temporarily removed to Savoy Hill, Victoria Embankment, and that until further notice all communications should be addressed to the clerk of the Tribunal of Appeal, London Building Act, 1894, Savoy Hill, Victoria Embankment, W.C. The Tribunal of Appeal will return to the new premises of the Surveyors' Institution in Great George Street, on their completion, in about eighteen months' time.

A REMARKABLE discovery was made lately, says *South Africa*, in Adderley Street, Cape Town. Workmen engaged in excavating came upon a large stone about three feet below the surface, of hexagonal shape, about five feet in diameter, and bearing an inscription in Old English lettering, with the date "1622" plainly visible. On account of the very considerable size of the stone it was impossible to get it out at once. It is said that it is a postal stone, under which mariners, either outward or homeward bound in those days deposited their correspondence. Of course, in those days what is now Adderley Street was then an open space, strewn with boulders and large stones, and hence this inscription on the stone for identification.

ONE of the most curious clocks in the World is that which an American has constructed during the past summer. The machinery, which is nothing but a face, hands, and lever, is connected with a geyser, which shoots out an immense column of hot water every 38 seconds. This spouting never varies to the tenth of a second, and, therefore, a clock properly attached to it cannot fail to keep correct time. Every time the water spouts up it strikes the lever, and moves the hands forward 38 seconds.

ST. MARY WOOLNOTH.

A LETTER of considerable importance appeared in the "Times" of the 10th inst. respecting this Church, bearing the signatures of Lords Meath, Dorchester and Teynham. It stated that the City and South London Railway Bill had passed the third reading in the House of Lords. "The object of this Bill, amongst other things, is to extend the time, which would otherwise expire this year, during which the railway company has legal power to secure the Church and churchyard of St. Mary Woolnoth for the purposes of a railway station. This Church stands in a most prominent position at the junction of Lombard Street and King William Street, close to the Mansion House. It is stated that for over 1,000 years a Christian Church has occupied this spot. The present edifice, dating from 1727, was built by Nicholas Hawksmoor, a pupil of Sir Christopher Wren, to replace an earlier structure that had been seriously damaged in the Great Fire. John Newton was its rector for many years, and was buried there, and it is the Parish Church of the Lord Mayors. In the opinion of those capable of judging, it is a building well worthy of its commanding situation. The Royal Institute of British architects recently passed a resolution 'that the council do take the most active steps in their power to preserve the Church of St. Mary Woolnoth from destruction, the Church being an architectural monument of the highest merit and in its particular position an adornment to the City of London.' How the Church authorities allowed a Railway Company to obtain powers over this hallowed spot it is not for us to say, but so far as the public were concerned the original Act of 1893 slipped through unobserved, as the name of the Church was not even mentioned in the Bill, and not until the present Bill was introduced this Session did the parishioners and others interested become aware of the danger. Thereupon active steps were taken to combat it. A public meeting was held on January 22 at the Mansion House, presided over by Sir Joseph Savory, Bart., M.P., in the unavoidable absence of the Lord Mayor. Amongst the speakers were the Dean of St. Paul's, Dr. Freshfield, Canon Newbolt, Mr. H. C. Richards, M.P., and Mr. F. C. Penrose, one and all of whom vigorously supported the preservation of the Church. The last-named speaker said the Church was 'one of the finest in the City,' a notable feature being 'its wonderful front towards Lombard Street.' As a result of this expression of public opinion, a protective clause was inserted in the Bill. This clause was necessarily in the nature of a compromise, but it so far modified the powers already acquired by the Railway Company as to compel the Company to safeguard the Church, and to restore to it its original condition on the completion or their underground Station, the Company being allowed to utilize the Church temporarily, and to appropriate a small part of the Churchyard. The Bill then went to the Upper House, when, without our being aware of their intentions, the Rector and Churchwardens, and not the promoters of the Bill, so it is reported, asked the select Committee of the House of Lords to strike out the clause protecting the Church. The railway company was not likely to object to this action, and, as there was no one else to do so, the clause was struck out. It was the reinsertion of this clause which two of us unsuccessfully endeavoured to secure on the third reading of the Bill. The Bill now goes back to the House of Commons, and we hope that Sir Joseph Savory and other members interested may induce that House to insist on the reinsertion in the Bill of the clause struck out by the Lords' Committee. Railway companies ought not to be allowed to commit unnecessary acts of vandalism on our historic and sacred Churches and churchyards, even though their proper guardians, the rector and churchwardens, may be oblivious of their trust."

As considerable structural alterations are necessary at Kendal Parish Church, it has been decided to engage an Architect to report as to what should be done.

WOOD PAVING.

THE MERITS OF HARD AND SOFT WOODS.

A SPECIAL Committee appointed by the Paddington Vestry in April last "to consider the whole subject of wood paving in the parish of Paddington, more especially in regard to annual renewals being brought within the limits of a specified amount," has issued a report, which will come up for consideration in October, on the relative merits of hard and soft wood for the paving of roads. The general description of wood paving in the parish is with soft wood and Portland cement joints. The tables prepared by the surveyor show that the life of soft wood pavements is not so long as formerly. This seems due to three reasons: (1) Traffic on the roads has increased; (2) the standard of roads, being higher, causes more frequent renewals; (3) the wood, owing to greater demand, is not so good as formerly. Hard wood roads have been extensively tried in London for about seven years, and, although at first they are more expensive than those made of soft wood, in the long run they are less costly, particularly when the traffic is heavy, in addition to which the great advantage of heavy traffic streets being less frequently closed for renewals is of considerable importance. If the life of hard wood as against that of soft wood be estimated by its wear, the Committee considers that at least 15 years may be taken for hard wood against a life of six years for soft wood on roads subject to heavy traffic, and they strongly recommend the Vestry to follow the example of other London parishes, and in future discontinue the use of soft wood for paving purposes, being confident that there will not only be a considerable saving by so doing, but the roads will be far better and more sanitary than at present. Assuming the average life of the present soft wood to be seven years, its renewal necessitates an estimated yearly expenditure of £8,750. Allowing the hard wood a life of 12 years only, the yearly renewals would cost £8,070, showing a saving of £680 per annum. A longer life would show a larger saving. There is no doubt that on roads with heavy traffic the saving would be very great. The Committee considers that a sum of £8,000 should be allowed yearly for the maintenance of wood roads, and in the event of any special circumstances arising, the extra charge ought to be met by loan. The London County Council, which fully recognises the economy of hard wood roads, will, for renewals of such material, grant a loan for seven years. In conclusion the Committee recommends "That the wood roads ordered to be renewed in 1896 be paved, as soon as practicable, with the best Jarrah wood."

LORD PENRHYN has given £300 to the fund of £2,000 which is being raised for the rebuilding of the Bangor Cathedral organ.

THE Attorney-General has consented to lay the Memorial Stone of the new buildings to be erected, at a cost of £37,000, for the Young Men's Christian Association at Newcastle-on-Tyne.

M. GIRAULT, an Architect of distinction, who won the Grand Prize of Rome, and has obtained honours in the Salons, has been selected to superintend the construction of the great Palace of the Exhibition of 1900. The works are to begin about September 15th next.

A COMPREHENSIVE scheme of town improvement has been laid before the Falmouth Urban Council. It is proposed to purchase the Gas and Waterworks at a cost of about £30,000, spend £2,500 on pavements, purchase the Market from Lord Kimberley for £3,000, and to extend the Pier to enable steamers to land passengers at all states of the tides.

A FURTHER contribution having this year been allowed in the Government Estimates for the preservation of the old Royal Palace of Linlithgow, workmen have been engaged for the past few weeks carrying out repairs on the eastern portion of the building. The walls have been "pointed" with cement, and other necessary repairs have been effected on the interior of the Palace. By these works a decided improvement has been made on the more delapidated portions of the old structure.

MONUMENTS OF THE "LORDS OF SHEPEY."

MINSTER CHURCH AND ABBEY.

THE date usually assigned to the dedication of Minster Church was about 675. Here Sexburga became the first prioress, but four years after she removed to Ely, her sister Alfrida having died, and her daughter Erminelda succeeded her. The site had peculiar attractions; its elevated position, insulated by the two branches of the Medway, with the Thames flowing in front, made it a conspicuous object to every voyager on the great Thames highway. The changes through which the name of the Island had passed were not without interest. The fame of its pasturage is preserved in its old Saxon name of "Schep-eye" (the island of sheep), which, in the harder language of the Norman, was Latinised into "Scapeia." St. Sexburga's religious house gave to it a new name, "Monasterium Scapieæ." This in the twelfth century was abridged into "Moynstre," in a little time into "Menstre," and eventually into "Minster," with the adjunct "in Sheppey," to distinguish it from the other in Thanet. Here Sexburga planted her Abbey and its Chapel for her 77 nuns. In the course of time there rose up by its side a Parish Church for the use of the outside multitude.

THE ABBEY HAS HAD A CHEQUERED EXISTENCE.

For well nigh 200 years its inmates may have enjoyed a peaceful period. In the ninth century came the Danes, swooping down on the sea-board of Kent, making two attacks on the Abbey, and desecrating the sacred place. In the eleventh century it fell a prey to the sacrilegious bands of the vanquished Earl Godwin. William the Conqueror found the Abbey almost empty, and transferred to it the sisters of the Newington Priory, whose devoted abbess had been murdered in her bed, and whose revenues he had appropriated. In 1130, Archbishop Corboil, after having held his grand dedication of Canterbury Cathedral, rescued the Abbey Chapel from ruin, and probably added to it a Parish Church. In 1322, a sad event befel the Monastery. It is vaguely stated in Archbishop Reynold's register at Lambeth, that both Church and Cemetery "suffered pollution from blood," and the Archbishop was entreated to send a faculty for holding a special "service of reconciliation" there. When we reflected that twelve centuries had passed since the pious Sexburga founded the building, and that after the Danes and Earl Godwin it sustained spoliation at the hands of the Tudors and fanatic destructiveness from the Puritans, one could hardly hope to find a vestige of the original fabric. Yet high up in the south wall of the Chapel, above the bays which separate it from the adjoining Parish Church, may be seen the circular arch of the old Clerestories, composed of Roman tiles, springing over rough stone jambs.

THE ARCHITECTURAL FEATURES

of the Church possess few points of interest compared with those of the monuments. They tell us of the successive families of note which, from the thirteenth to the sixteenth centuries, were "Lords of Shepey," for each family has its representative here — Shurland, Northwode, Cheney. One that claims priority in point of artistic and historic interest is that in the south wall of the Chancel. Here lies a knight in his shirt of mail, with his boy page close at his feet. A singular adjunct to the group is a horse's head, rising up as it were out of the waves. It represents Sir Robert de Shurland, who took part in the Crusade of 1271, under Prince Edward, afterwards Edward I., and was created knight banneret for gallantry at the siege of Carlaverock. In a daring exploit a favourite horse saved his life by swimming ashore, but on landing an old hag, commenting on his rashness, warned him that some day the horse would be the death of him. He killed the horse on the spot. Some years after, seeing the skeleton on the shore, he gave the head a contemptuous kick. In doing so he bruised his foot, the wound mortified, and he died. To perpetuate the tradition a horse's head was placed on the tomb, and also on the vane of the Church Spire, thus explaining why Minster Church is sometimes called "The Horse Church." The interest of this monument does not rest here. It is covered by a canopy of much later date, and here is a tomb, which must have been grand and beautiful, the imposts still retaining in wonderful perfection and sharpness the head of a veiled nun on one side, and on the other that of a man whose thick rolling curls suggest the times of Edward III. or Richard II. It may have been designed for some high-born prioress.

SCARCELY INFERIOR IN INTEREST

are two brasses in the centre of the Chancel, on either side of the Lectern. On a very massive tomb of Bethersden marble, with its sides and ends richly ornamented with sixteen escutcheons proclaiming the proud alliances of the Cheyney family, lies an alabaster figure of a knight in full Court costume of the latter part of the sixteenth century. A partially-effaced inscription shows that this Monument was in memory of Sir Thomas Cheyney, Knight of the Garter, Lord Warden of the Cinque Ports, Constable of Dover Castle, Treasurer of the Household to Henry VIII. and Edward VI., and Privy Councillor under Mary and Elizabeth. In spite of all his honours, his heart, as shown by his will reverted to the old family home: "I will," he said, "that my bodye be buryed in the Minster in the Isle of Sheppey, in a Chapel there, wheare my late wyef, Dame Frydeswith, and divers of myne ancestors are buryed." The Nunnery Gate House alone remains to bear witness to the former grandeur of the nunnery. Its arched entrance has been built up, and the whole utilised for the families of two farm labourers. In the east corner is still the spiral newel stair in the turret projection, which once led to two rooms, in which two priests, one confessor of the nuns, the other chaplain of the Church, used to live.

LONDON COMMONS.

THE RIGHT OF DIGGING GRAVEL.

THOUGH arising in a local form, a question which is really of much practical importance to London recently came before the justices at Bromley. The point which the justices were asked to determine is whether the road authority of the neighbourhood, the Rural District Council of Bromley, is to be allowed at will to take gravel for the repair of the roads from Hayes Common. The case has many interesting features. Hayes Common was the first common to be placed under local management, and thus to be dedicated to the public under the provisions of the Metropolitan Commons Act of 1866. The creation of a Board of Conservators was sanctioned by Parliament in the year 1868, and the common has consequently been dedicated to the public enjoyment for nearly thirty years. Such a common as Hayes, one would have thought, would have been recognised as peculiarly unfit for use as a gravel pit. The District Council, however, takes a different view. By the Highway Act of William IV., highway authorities were empowered to enter upon any open waste land, and, under certain conditions, to take from it gravel and stone for the repair of the road. When, in 1876, the question of preserving commons for recreation was under consideration, it was felt that when a common was definitely set aside for the enjoyment of the public it assumed the character of a public park rather than that of waste ground, and restrictions were therefore put upon the exercise of the powers conferred by the earlier Act. It was provided (by the Commons Act of 1876) that no digging for road materials should be lawful without the consent of the body in charge of the common, or without an order of justices; and the justices were empowered to point out where and to what extent digging might still be carried on. In the twenty years which have passed since this enactment came into force there has, we believe, been only one case before that of Hayes in which a highway authority has appealed to the justices. The Wandsworth District Board of Works applied many years ago for an order to dig on Wimbledon Common, the Conservators of the common having refused their consent, and the magistrates declined to make any order. At Hayes digging continued for some time after the Board of Conservators was constituted. But latterly the common has been so largely used and the gravel pits have so greatly extended that the Conservators have withheld their consent, and the recent appeal was the consequence. It was proved at the hearing that, in the opinion not only of the Conservators, but of the Parish Council, gravel could not be dug on the common without injuring its beauty and reducing the area available for recreation, and it was admitted that gravel could be obtained elsewhere. The case of the District Council appears to have been put on the singular ground that they had a statutory right to dig on the common, and that such right could not be taken away without compensation. It seems an obvious answer to this argument that the power conferred by statute has been also limited by statute and cannot now be exercised if the body in charge of a common and the justices of the district think such exercise is not in the public interests. The justices at Bromley have, however, been convinced that they had no discretion to refuse an order, and that their only function consisted in framing rules to be observed in the digging. This is a point of law which should certainly be cleared up, and we understand that the Conservators of Hayes Common will take the necessary steps to submit it for the decision of a competent legal tribunal. Within the area of the Bromley District Council are several other commons dedicated to the public enjoyment and of great value and beauty; among them may be mentioned West Wickham, Farnborough, and Chislehurst. The position of the justices and the view they may ultimately come to are matters of some concern, therefore, to all who are interested in metropolitan open spaces. It is an odd feature of the case that the District Council, which is thus seeking power to dig commons and disfigure them, is a body endowed by the Local Government Act of 1894 with large powers of protecting common land.

MOSAIC floors, laid with small pieces of different coloured stones in regular patterns, were known to the Egyptians 2,300 B.C. In Babylon floors of this kind dated from 1100 B.C.

LADY KORTRIGHT recently laid the Foundation Stone of the new In-patients' Department of the Grosvenor Hospital for Women and Children, Vincent Square, Westminster. The cost will amount to about £9,000.

A STAINED glass window has been erected over the south Porch of St. James's Church, West Teignmouth. The design of the window, which is in three large compartments or lights, with kite-shaped tracery, is to illustrate the Acts of the Apostles.

EARLY next month Mr. F. W. Pomeroy's colossal Statue of Burns is to be unveiled at Paisley by Lord Rosebery. The poet is represented standing in a contemplative attitude leaning on his plough. The pose is one suggested by the opening lines of "The Brigs of Ayr"; and the manner in which the artist has carried out his work seems to have given very widespread satisfaction.

AT a meeting of the Belfast Harbour Commissioners, the secretary (Mr. Currie) read a letter from Mr. William Chaine offering to sell, free of all encumbrances, the entire lands, wharves, plant, machinery, &c., at Larne Harbour, for a sum of £90,000. As the average net earnings of the Larne Harbour for the past three years exceeded £4,000 a year, the price asked represents 22½ years' purchase of £4,000.

NEARLY 300 of the prints contributed to the Photographic Survey of Warwickshire by the members of the Photographic Society are on exhibition at the Birmingham Art Gallery. Besides embracing many famous seats, sketches of landscape, Churches, and old roadside Inns, there are some excellent interiors, and quaint or peculiar relics, such as a photograph of a very old certificate of a woodman of Arden, and a print of Abraham Thornton's gauntlet. There are a number of pictures of Sutton Park, Maxstoke Castle, Warwick Castle, Kenilworth Castle, Middleton Hall, and Whitacre Hall, from different aspects.

Professional Items.

BRADFORD.—The Board of Management of the Infirmary has decided to build a new nurses' home in the Infirmary grounds, at an estimated cost of from £8,000 to £10,000.

MAESTEG.—A new Memorial Church is being erected to the late Miss Olive Talbot, the Architect being Mr. G. Halladay, of Cardiff, and the contractors Messrs. McGaul and Son, of Bridgend. It is designed to seat 600 people, and the total cost is estimated at £6,000.

NORTON, MALTON.—The laying of the new sewer in St. Nicholas Street, St. Peters Street, and Langton Road, for the Urban District Council, has been entrusted to Mr. A. Lyons, contractor, Norton. Mr. M. Nelson is the Surveyor.

SILVERDALE.—In connection with Trinity Wesleyan Church, the foundation stones of a new Sunday School were recently laid. The School is being built adjacent to the present Chapel on the east side. It will be stone built, harmonising in design with the existing Chapel, and will cost in all about £400.

HARROGATE.—A new Pavilion, 80 ft. by 40 ft., has been erected at a cost of £900, at the Harrogate Athletic Club Grounds. In front an open verandah is provided, 10 ft. wide, running the full length of 80 ft. The Dressing Rooms are placed at the ends, each having Lavatories and other accommodation. In the centre of the building is a Tea Room, 32 ft. by 20 ft., Kitchen, Bar, and other rooms. Mr. G. Bland, of Harrogate, was the Architect.

MIDDLETON.—A report has been submitted to the vicar and wardens of the Middleton Parish Church by Messrs. Bodley and Garner, Architects, of London, on the proposed restoration of the ancient fabric. After due consideration of the lengthy document it has just been decided that the restoration of the edifice should be carried out as opportunity afforded. Improvements of a most extensive and costly character are contemplated.

MORECAMBE.—A new Wesleyan Chapel, of which memorial stones were laid on the 11th inst., is being erected on a site at the West End of Morecambe, from designs by Mr. S. Wright, Architect, of Lancaster. The scheme includes a Chapel to seat 914 persons, and a new Schoolroom with Vestries, &c. The original Schoolroom, in which services have hitherto been held, will be adapted for Infants' Class Rooms and other purposes. The cost of the structnre is estimated at about £6,000.

STOCKPORT.—There has just been completed for the town of Stockport a gigantic sewer which intercepts the whole of the sewage of the town from entering the river Mersey, the total length of which is four and a half miles, and the cost of which has been nearly £100,000 (exclusive of the cost of the land). This important work was carried out by Mr. A. M. Fowler (late City Surveyor of Newcastle-on-Tyne). Mr. Fowler engineered the Leeds Sewage Works, which were on a similar scale to those at Stockport, and he has just commenced to build a great sewer at Bridgewater.

DARWEN.—The General Purposes Committee of the Darwen Town Council recently met to further consider the applications for the borough surveyorship, which is worth £300 a-year, and was rendered vacant on Mr. Stubbs's appointment to a similar position at Blackburn. Twelve names were before the committee, and the voting left the following five gentlemen in for the appointment:—Messrs. F. Thackeray, Darwen; W. H. Prescot, deputy engineer, Darwen; N. Greenshields, Leicester; A. W. Bradley, Bury; and R. W. S. Saville, Burton-on-Trent. The committee will meet again on the 27th inst., when the appointment will be made.

BARMOUTH. — Memorial Stones of a new English Congregational Chapel in course of erection in Jubilee Road, were recently laid by Miss Farningham. The Church will be of modern design and will be principally of stone obtained locally, the windows being bordered with Hellsby stone. In the front there will be a large arched window, while the side windows will be of Gothic design. The whole cost of erection will amount to £2,000, and £800 has been paid for the land. The architect is Mr. Blackburn and Mr. John Adams has accepted the contract.

PERTH.—At a recent meeting of the Work Committee of the Town Council, the Architect explained how the estimates for the work to the interior of the Middle Church had been considerably exceeded, particularly the mason's estimate. It was found that the bulk of the excess of the mason's work was caused by work on the groined roof, it being found impossible and undesirable to restore the plaster which had been removed. Various other improvements of a permanent nature had been found necessary to be carried out, and these, while they increased the expense, would have had to be done sooner or later.

HOWTH. — The old "Chapel" at Howth, which had served the people for close on a century, has proved entirely unsuitable and inadequate for present day requirements. Accordingly two years ago a movement was inaugurated to replace it. Through the generosity of Lord Howth, the present site in the centre of the town was secured, plans were invited from Mr. William H. Byrne, Architect, and the execution of this design was entrusted to a local builder, Mr. Lacy, of Howth. The new Church will be Romanesque in style, with Nave, Transepts, Side Chapels, and circular Apse. A Tower and Belfry will also be erected. The cost of the building will be about £10,000.

DUBLIN. — The Archbishop of Dublin recently visited Balbriggan to re-open St. Peter's Church. The Church, which is an old structure, has been completely remodelled, has been added to, and has been generally restored. It has been painted in white, grey, and lemon-coloured tints, has had new seats put in it, a new stained glass window, and a new organ. The Altars are of marble and of good design. The high Gothic arches which separate the Nave from the Aisles give an air of great lightness and airiness to the structure, which is still further aided by the appropriate painting of the walls and ceiling, so that the Church is now in every respect a new one. The Architect was Mr. Ashlin, the contractor Mr. Heeny, of Balbriggan.

PITLOCHRY.—The conditions for the competitive designs invited for the proposed new public School by the Board state that accommodation is to be provided for 620 pupils, together with the usual offices, including janitor's house; that the total cost of the buildings, including boundary and other walls and all requisite fittings and fixtures, is not to exceed £5,000; that the Board shall have the services of an eminent Architect to assist them in approving of a suitable design, which, until finally passed by the Department, shall not be held as selected; that the author of the selected design shall be employed as Architect for the School upon the usual terms of professional remuneration; that other competitors shall not be entitled to any premium; and that designs must be lodged with the Clerk of the Board before September 1st, 1896.

LEEK.—We give on this page an illustration of premises now approaching completion, and erected for Messrs. Overfield and Co., in Russell Street. The floor area of the basement alone is nearly 250 superficial yards, and there are five such stories in the building, besides an additional storage story in the roof. Timber construction of a substantial character has been largely adopted. The gables are rough cast in Nottingham gravel, and the work generally is of a plain but bold, effective character, the shop front only being enriched by a carved beam and 18th century curved fanlights. A spacious staircase and a large lift, terminating in a south gablet, give access from floor to floor. The buildings have been designed by Messrs. W. Sugden and Son, of Leek and Hanley. Mr. W. Hall executed the brick and stone-work, Mr. H. Hill the plastering, Mr. M. Carding the plumbing, painting, glazing and gasfitting, under the architects' personal supervision.



BUSINESS PREMISES, RUSSELL STREET, LEEK: MESSRS. WILLIAM SUGDEN AND SON, ARCHITECTS.

ST. AUSTELL.—The Public Rooms, which occupy an elevated site near the junction of the Truro and Bodmin Roads, have been opened by Mr. McArthur, M.P. The building has been erected from the designs of Mr. S. Trevail, in the Victorian style, its outer walls being of local blue and white granite. The chief feature is a Hall 80 ft. long, 40 ft. wide, and 33 ft. high. This is well lighted and ventilated, provided with an organ loft and platform at one end, and a Gallery at the other, and conveniently served by ante-rooms. It has four exits, emergencies

having been kept fully in view. The roof is circular, and ribbed with pitch pine, with brackets resting on corbels. Underneath this room are a Drill Hall, Council Chamber, Surveyor's Office, Rate Collector's Office, and a Fire Station, the whole of which, with the exception of the Drill Hall, has been taken for twenty-one years by the Urban District Council. Mr. T. Parsons has acted as clerk of the works, and the contractor was Mr. Thomas J. Smith, of St. Austell. It is expected that the building and furniture will cost about £5,000.

COOKSTOWN. — The Second Presbyterian Church which has been closed for some months, and has undergone very extensive repairs and alteration, was recently re-opened. The old pews fitted with doors have been removed and new seats without doors or divisions bave been substituted. The Pulpit has been replaced by a modern platform, neatly executed in pitch pine. In front of the Pulpit, and at a slight elevation, accommodation has been provided for the choir. The arrangement of the seats in the wings of the Church has been altered, and, while the sitting space has not been reduced, those who were formerly seated close to the back wall, and consequently somewhat behind the speaker, have now a moderately wide Aisle between them and the wall. The heating of the Church and School buildings was entrusted to Messrs. Musgrave, of Belfast, who have erected their high-pressure small-bore apparatus. Owing to the situation of the buildings very expensive and troublesome excavations had to be made at the rear of the Church for the heating furnaces, and the arrangement of these has been specially improved so as to provide the maximum of heat from the fuel consumed. The inside of the Church has been coloured, while all the woodwork is pine, varnished. The outside of the Church has also been painted, and all the improvements executed in a thorough manner. The joinery work has been carried out by Messrs. Henry Forrest and Sons, and the painting has been done by Messrs. W. H. Warnock and Sons.

ABERDEEN.—The opening of the new Hospital and Administrative Offices at the Aberdeen Royal Asylum recently took place. The site of the new Hospital is behind the main Asylum buildings, but on a higher level by about 13 feet. The Hospital building is designed to be the nucleus of the whole Institution—the centre of administration. The Hospital may be said to be a group of five blocks, connected together by corridors. Two other small blocks, for isolation purposes, flank the larger buildings. The central block contains the Administrative Offices, Admission Rooms, Waiting Rooms, &c. To the rear of this block is the general Dining Hall of the Hospital, with the Attendants' Dining Rooms and the necessary accommodation for service. The male and female observation blocks, immediately right and left of the central block, provide Living and Sleeping Rooms for recent patients, under special observation. Adjoined to these blocks are spacious corridors and large glass-covered courts for the use of the patients. The Side Ward blocks, male and female, are at the extreme ends of the group of buildings. They each contain, besides a number of single rooms, a large Hospital Ward. These Wards have been built L shaped, in order to avoid the monotonous effect of a long Ward. At the angle of the L there is in each Ward a large space, with bay windows, fitted up as Day Rooms for patients who during part of the day are able to be about. The central building is three stories high, the observation blocks two stories, and the Sick Wards one story, above the general ground floor level. As the ground to the east falls rapidly, a full story has been obtained under the Female Sick Ward, and has been utilised as additional ordinary accommodation for female patients. The buildings are electric lighted, mechanically ventilated, and sanitarily equipped in the most complete manner. The Hospital is connected to the main Asylum building by a glazed corridor, tile floored. The Architect was Mr. William Kelly, and £50,000 was set aside to cover cost of building and furnishing.

AN organ is to be erected at Hawick Parish Church costing £955.

AN OLD WOODEN STATUE.

A STATUE of General Washington, which was erected in New York City during the life of the First President, and which was practically lost for half a century, is now used as a cigar store sign up in Harlem. The statue is of colossal size. It is cut out of wood, and is a good example of the carving that was done during the early days of New York. The present owner bought it as part of the more or less worthless rubbish which went with the store when he bought out its former owner. The tradition surrounding the statue is peculiar, and if the statements made concerning it are true it may come to assume an important place among the relics of the city. It is claimed for the statue that it was erected in New York in 1792 to commemorate the taking of the oath of office by Washington in 1789. Doubtless it took its unknown sculptor three years to complete it. It is stated that it was erected with suitable ceremony in Battery Park, and stood there until 1843. It was then removed and bought by a collector of antiquities named Jacques. He kept it hoarded away for 40 years. Jacques died in 1883, and his effects were sold at public auction. Among other forgotten relics, the statue was brought to light. The bidding on it was spirited and brisk. Its value leaked out in some manner, and many were there to buy. The first call started the price at 50 dol. This was raised to 100 dol., and this to 150 dol., and so on, in jumps of 50 dol., until 300 dol. was reached, when it was knocked down to David J. Schiff. It was conveyed to his store, where it became locally celebrated. During the centennial celebration of the inauguration of Washington, in 1889, the statue was lent by Schiff to some relic hunters, who placed it on the top of the wooden Arch erected in Washington Square, prior to the erection of the present marble structure. The figure was doubtless viewed by thousands who crowded into Washington Square on the fête dayss After the celebration it again dropped from the general public view, and resumed its function. as a cigar-store sign. Mr. Schiff, after several years' possession of the statue, finally thought it advisable to give up his business. By some mistake, so he states, the statue was included in the fixtures of the store, and it passed out of his possession. This is the history of the statue as far as can be learned at present. There is no doubt that when this figure of Washington was new it presented a beauty of outline which must have caused it to be universally admired. It yet shows the fact that it was carved by no "prentice hand." But time, exposure to the elements, and the manner in which it has been knocked about have greatly blunted the original conception. The figure is heroic in features and size. It depicts Washington in Continental uniform—blue dress coat, brass buttons, buff breeches, riding boots, &c. The left hand holds a cocked hat. The right arm hangs down at the side, the hand being slightly raised. This hand once held a scroll, which decayed in time, and was cut off when the statue first went on duty as a cigar sign. A wide crack extends down the left side of the face from the crown of the head to the chin. The epaulets are cracked, broken, and half off. There is a crack nearly an inch wide extending from the neck down the body and part of the left leg. It is evident that the feet of the statue were new. Two cracks around the ankle show where they have been joined. Mr. Schiff has admitted that he placed the new feet on the statue.

FOR the proposed County Museum at St. Albans, the site for which has been given by Earl Spencer, it is estimated that at least a sum of £5,000 will be required, £3,000 of which would be spent for building the Museum and providing the necessary fixtures, and £2,000 as a nucleus of an endowment fund. It is suggested that the management of the Museum should be vested in a committee representing the County Council, the chief societies of Hertfordshire, and others interested in archæology and natural science. There would be four departments, viz.: Natural History, Geology, Archæology, and Arts and Crafts.

KEYSTONES.

A LARGE scheme of extension for the Aberdeen herring fleet is suggested by the Harbour Board.

THE Exeter City Lunatic Asylum Committee proposes to build an Isolation Hospital for infectious diseases, and suggests that the cost, rather over £1,000, should be paid out of revenue.

THE George Hotel, Wind Street, Swansea, is to be rebuilt on an area of 1,929 square feet. The Architects are Messrs. J. P. Jones and Margrave, and the cost is estimated at about £16,000.

PLANS have been prepared for the conversion of Brynhyfryd, Ruthin, into Intermediate Schools for boys and girls, and the premises have been valued by Messrs. Dew, of Bangor, on behalf of the Charity Commissioners.

AT the monthly meeting of the Helensburgh Police Commissioners it was agreed to obtain powers for borrowing a sum to cover the estimated total of £2,878 for streets improvements, increased lighting, parks and buildings, and waterworks extension.

IT is proposed by some wealthy Americans to erect a Statue to Pocahontas in the place of her death. The heroine of so many novels, plays, and burlesques deserves the honour. Her portrait still exists at Booton Hall, in Norfolk, the former seat of the Rolfe family, into which she married. It is by De Passe, and is very well painted.

VARIOUS plans have been prepared for the enlargement and improvement of the Aberdeen Joint Railway Station, but the difficulty of deciding as to the direction in which the extension should be made has yet to be solved. In the meantime arrangements are being made for relieving the present congestion of traffic at the terminus. Even were the work of extending the station proceeded with at once, it would probably take two years to have the scheme completed.

APPLICATION has been made to the Consistory Court of Southwell for a faculty authorising extensive alterations of St. George's Church, New Mills, Derbyshire, at an estimated cost of £960. It is proposed to form a Chancel at the east end of the Nave for the Choir, with a Vestry on the south side and an Organ on the north. The Nave is to be reseated with open benches, Choir seats, prayer desks, lectern, and Pulpit provided, in addition to a sedilia and credence niche in the Chancel. The Gallery and Organ are to be repaired.

AT Mellor Church, near Blackburn, it is proposed, amongst a number of alterations in the interior of the Church, to form a defined Chancel by screens of oak, relay the floor, put in a new oak front to the Gallery, and supply inner screen light doors to the two entrances and Reading Desks, to light the Church with gas, and rearrange the Heating Apparatus. It is also proposed to place the Font in a niche and substitute a new white marble Font on its site, to restore the Organ, and refloor the Gallery.

SIR JAMES BELL, the president, in opening the proceedings of the British Institute of Public Health, described the progress made by Glasgow during the last 50 years in respect of its sanitary arrangements, one result of which had been that the death rate had been reduced from 56 per thousand of the population in 1847 to 23 per thousand in 1893. Much still remained to be done, and the Corporation had just obtained power from Parliament for an extension of sewerage works with a view to the purification of the Clyde. The cost of this section of the scheme would be over £600,000.

DURING some recent excavations of the roadway in Chapel Lane, Bradford, nearly opposite the entrance to the Unitarian School building, a singular relic was brought to the surface in the shape of a bottle hermetically sealed, and nearly full of preserved gooseberries. From measurements taken by Mr. Cox, the Borough Surveyor, the bottle appears to have been originally placed upon a corner of the site of Cliffe's Foundry, namely, the portion of ground at the junction of Bower Gate with Chapel Lane. The glass is of a dark green or olive colour, and of a texture very different from that of the glass made at the present day.

SOCIETY MEETINGS.

National Association of Master Builders of Great Britain.—The National Association of Master Builders of Great Britain recently held its half-yearly meeting at the Waterloo Hotel, Prince's Street, Edinburgh, when representatives were present from London, Liverpool, Birmingham, Dublin, Edinburgh, Leeds, Glasgow, Bristol, Bradford, Huddersfield, Wolverhampton, Leicester, Shrewsbury, Cambridge, Barnsley, Burslem, Hanley, Newcastle, Staff, Leigh, &c. Mr. Thomas F. Rider, London, the President, was in the chair.—Mr. C. W. Green, of Liverpool, the hon. treasurer, submitted his audited accounts for the half-year, showing the financial position of the Association to be most satisfactory. — The President congratulated the members present on the improved position of the Association, and referred to the increased membership by the affiliation, during the past half-year, of eight branches. — Mr. Stanley G. Bird, of London, addressed the members respecting the form of contract.—Mr. James Bowden, of Burslem, spoke on the subject of apprentice indentures, and reverted to the form of indenture which had been submitted to the various local associations for their approval.—Mr. George Hardington, of Leicester, also spoke on the subject, and suggested to the meeting the desirability of obtaining counsel's opinion as to the best form of indenture to be adopted by the association for general use.—The strikes pending in Dublin and Leeds were discussed, and representatives from both places explained the difficulties which had arisen in the building trades between employers and workmen. It was resolved to hold the next meeting in Blackburn.

The Sanitary Institute.—The preliminary programme of the fifteenth congress, to be held in Newcastle-upon-Tyne from September 2nd to 9th, has now been issued. The president of the congress is the Right Hon. the Earl Percy, P.C., D.L., J.P. The meetings of the congress will consist of three general addresses and lectures. Three sectional meetings, dealing with (1) Sanitary Science and Preventive Medicine, presided over by Professor W. H. Corfield, M.A., M.D. (Oxon.), F.R.C.P.; (2) Engineering and Architecture, presided over by Sir Andrew Noble, K.C.B., F.R.S., M.Inst.C.E.; (3) Chemistry, Meteorology and Geology, presided over by Mr. W. H. Dines, B.A., F.R.Met. Soc. Five special conferences: Port Sanitary Authorities, presided over by Mr. Arthur Holt-Barber, chairman Port of London Sanitary Authority; Medical Officers of Health, presided over by Mr. Alfred Hill, M.D., F.R.S.E., F.I.C., F.C.S.; Municipal and County Engineers, presided over by Mr. Francis J. C. May, M.Inst.C.E.; Sanitary Inspectors presided over by Mr. George Reid, M.D., D.P.H.; Domestic Hygiene, presided over by the Mayoress of Newcastle-upon-Tyne. In connection with the Congress, a Health Exhibition will be held, and H.R H. the Duke of Cambridge, K.G., who is president of the Institute, has consented to perform the opening ceremony on September 2nd. Excursions to places of interest in connection with sanitation will be arranged for those attending the Congress. The local arrangements are in the hands of an influential local committee, presided over by the Mayor of Newcastle, with Dr. H. E. Armstrong, Medical Officer of Health for the city, and Dr. J. W. Hemborough, Medical Officer of Health for Northumberland, as honorary secretaries. It appears from the programme that over 160 authorities, including several County Councils, have already appointed delegates to the Congress, and, as there are also over 1,800 members and associates in the Institute, there will probably be a large attendance in addition to the local members of the Congress.

The Royal Archæological Institute at Canterbury.—Canterbury has recently been the centre of the meetings of the Royal Archæological Institute, from whence visits to surrounding places of interest have been made. At Fordwich, the Parish Church of St. Mary the Virgin was visited, under the guidance of the Rev. C. E. Woodruff, who thought the Church contained traces of pre-Norman work. The north Aisle was added in the thirteenth century, and the square-headed windows of Nave and Aisle in the fourteenth century. The curious shrine-like tomb which stands in the north Aisle was carefully examined, and pronounced by several gentlemen present to be twelfth century work. The party were then conveyed to Reculver, where an address on the history of the Roman camp was given by Mr. G. E. Fox, F.S.A. Mr. J. T. Micklethwaite having described the ancient Church at Reculver, the party proceeded to Herne, where a paper was read on the history of the Church, which is dedicated to St. Martin of Tours. There was no doubt a much older Church than that now existing, and some of its stones of Norman date could still be seen in the west front of the Nave. The present massive tower was built about 1350. Another day Dover was reached, where St. Mary's Church was examined. The Castle was described by Mr. E. Green, F.S.A., while the Church of St. Mary-in-the-Castle was described by Mr. J. T. Micklethwaite, and the Roman Pharos by Mr. G. E. Fox. Chartham and Chilham were also included included in the excursions. At Chartham Church the Rev. C. Randolph read a descriptive paper. The Church, which is mainly in the early decorated style, is a fine cruciform building, with a massive Tower at the west end. It was probably built between 1285 and 1295, and from the harmonious effect of the different portions, was no doubt entirely designed by one man, who probably was Henry de Estria, Prior of Christ Church, Canterbury, from 1285 to 1330, and builder of the Chapter House and the Choir Screen of the Cathedral. The Nave is much plainer in design than the Chancel, which is accounted for by the fact that the monks of Christ Church, who built the Chancel were rich, while the parishioners, who built the Nave were poor. The fine range of windows in the Chancel (four on each side of two lights each, and the great east window of four lights) are very beautiful, and form an almost unique series, the tracery being of the style known as "Kentish tracery." In the Church are some fine brasses, rubbings of which were taken by some of the visitors. The Church before its recent restoration by Mr. G. E. Street, was in a deplorable state, a huge Gallery blocking up the fine western arch, and all the fittings being of the poorest description. The restoration was a very careful one, and the Church is now nearly as possible in the same condition as when first built. Proceeding to Chilham, the vicar (Rev, G. Howard Wright), read a paper on the history of the Church and parish. The fine Church, which, excepting the Chancel, is in urgent need of restoration, is Cruciform, with Aisles to Nave and Chancel, and a noble western Tower. The earliest mention of a Church here occurs in Domesday Book, but a Church has existed from the earliest Christian times. The north and south Transepts (dating from thirteenth century) are the oldest portions of the present building; the Tower Arch is fourteenth century work, and the Nave of fifteenth century, while the Chancel was entirely rebuilt in 1863 at the cost of the late Mr. Charles Hardy. Portions of the building, especially the north wall and the south Transept, are now reported by Mr. J. Arthur Reeve (Architect) to be in such a condition that they must be taken in hand without delay, and funds are being raised for the purpose. At Chilham Castle the ancient portions were carefully examined. Mr. E. Green, F.S.A., said that the Castle was a difficult building to describe, much of it having been pulled down and the remaining portions greatly altered from time to time, but there was no doubt it was of Roman origin. Richborough was also visited, and the Roman Station described by Mr. G. E. Fox, F,S.A. From thence the route was to Ash, where the Church was described by Rev. E. S. Woods, M.A., Vicar, and effigies it contains by Viscount Dillon, F.S.A. One day was devoted to the Cathedral and Monastic buildings under the guidance of Mr. St. John Hope.

IT has been suggested that advantage be taken of the contemplated alteration in Parliament Street to construct a subway from some point in the vicinity of Downing Street to Palace Yard for the convenience of ministers, officials, and messengers.

NEW BOARD SCHOOL AT ROTHERHAM.

THE new Board Schools erected by the Rotherham School Board at the corner of Alma Road and Matilda Street were formally opened on the 8th inst. The structures will furnish accommodation for 689 children. The boys' and girls' departments, a two-story building, faces Matilda Street. The Boys' School is on the ground floor, where there is provided a large Cloak Room and Lavatory, leading from the entrance passage. The Schoolroom measures 21 ft, 6 in. by 42 ft. and two Class Rooms, each 28 ft. by 21 ft. 6 in., giving a total accommodation for 210. On the upper floor, approached by a wide stone staircase, is a Schoolroom and two Class Rooms with accommodation for a similar number of girls, and a Teachers' Room. The Infants' Department consists of a large School Room, 52 ft. 6 in. by 23 ft., and two Class Rooms, each 22 ft. 6 in. by 22 ft. The School and Class Rooms have a glazed brick dado round all the walls 3 ft. 9 in. high, as also have the Lavatories. The School has an extensive asphalted playground, the boys being separate from the girls and infants, and in each is erected a large playshed. The Latrines are centrally situated and flushed automatically at frequent intervals. In addition there are the usual Offices, viz.; Coal and Wood Stores, Ashes Place, &c. The whole is built of Dunford Bridge wallstones with ashlar dressings, and covered with Westmoreland slates. The floors of all Rooms except Lavatories, are of concrete, and wood blocks laid by S. Macfarlane, of Leeds. The Lavatories, &c., are of concrete, with cement surface. The School is on all sides surrounded by stone boundary walls—that to the streets having iron palisading. The general treatment is of a bold type of modern Classic Architecture. The Architect is Mr. H. L. Tacon, Rotherham; the contractors for the work were Messrs. Chadwick and Co.; and the clerk to the works, Mr. F. P. Jenkinson. The amount of the contract was £6,339.

HIS Royal Highness the Prince of Wales has recently purchased two pieces of repoussé silver work by Mr. Gilbert Marks, of Croydon.

THE building of a Hotel on the site of the old Mermaid at Mumbles, will be commenced in the course of a fortnight. The Architects are Messrs. J. P. Jones, Rowlands and Margrave.

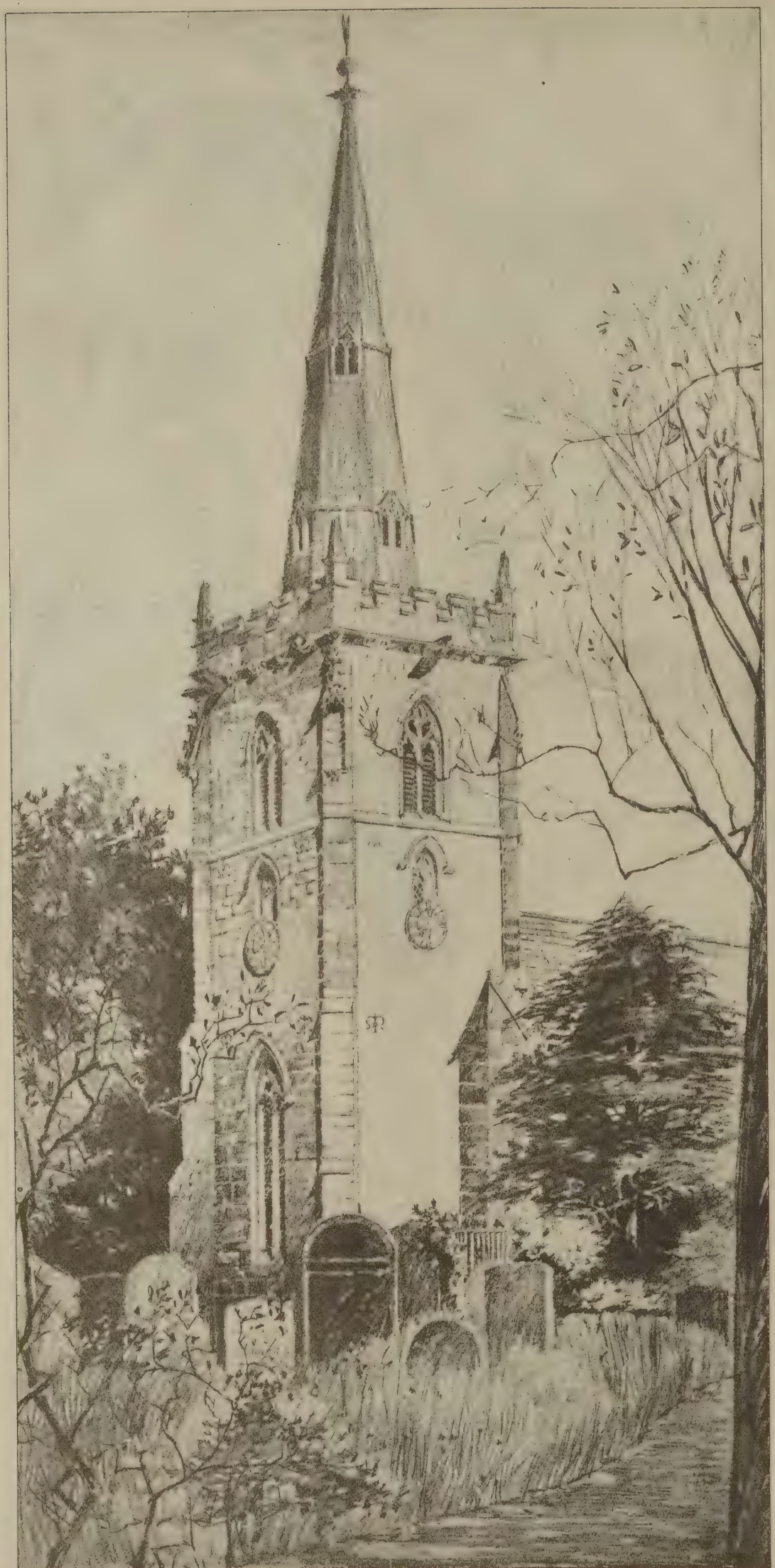
AT a recent meeting of the Gas Light and Coke Company, held at the Offices in Horseferry Road, Westminster, it was stated that the total number of automatic meters in use was now over 42,000, and applications were coming in faster than they could meet them.

SIR JAMES D. MACKENZIE, Bart., has written a work on "The Castles of England: their Story and Structure," giving historical, archæological, and architectural data about the 600 Castles and fortified Mansions which are known to have been erected from the Conquest to the reign of Henry VIII. It is to be published by Mr. Heinemann in two handsome volumes, fully illustrated with plates, plans, and other pictures.

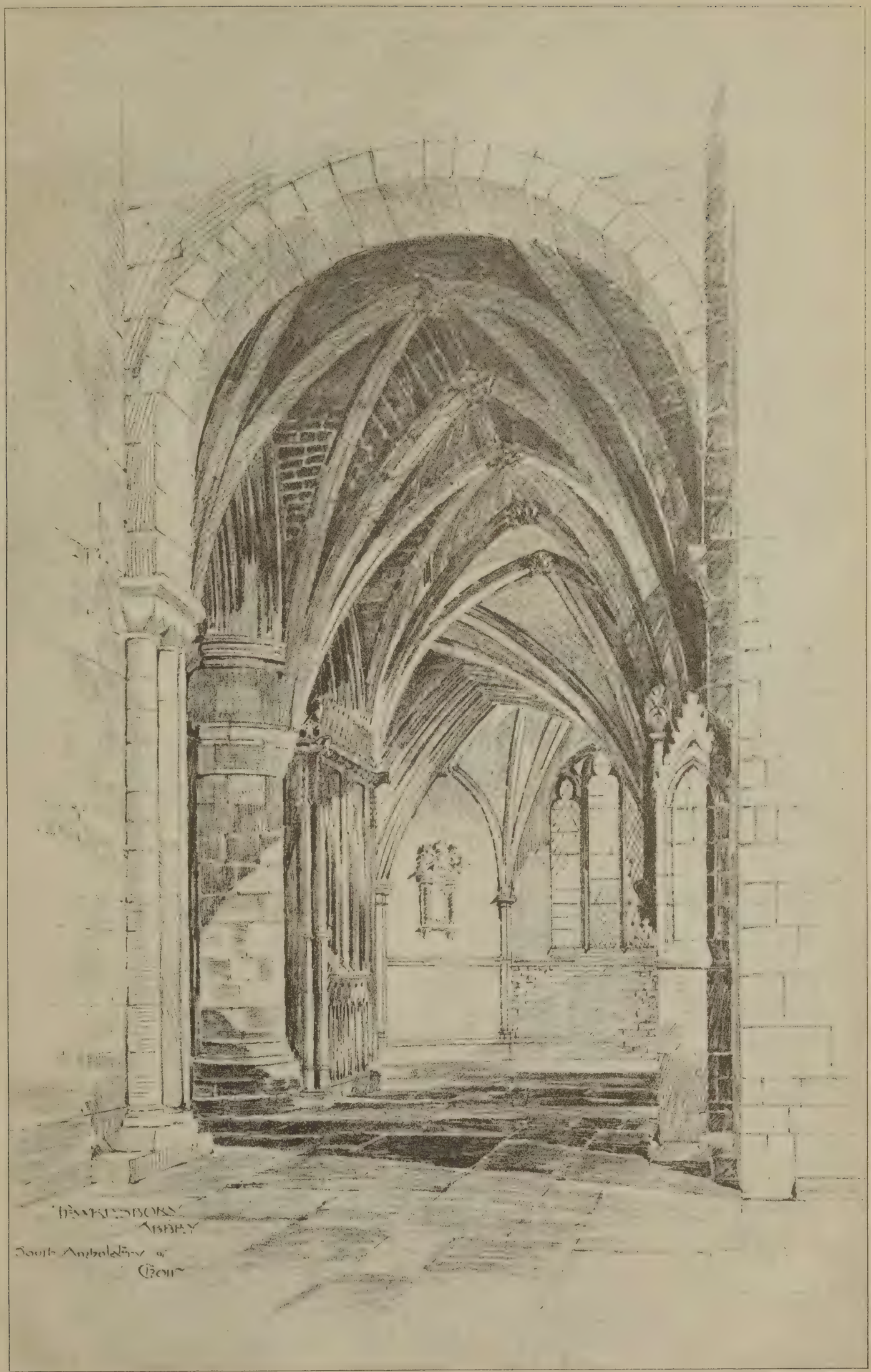
MEMORIAL Stones have been laid of a new Baptist School at Nelson. The building is calculated to accommodate about 800 scholars, and the estimated cost is £4,280. The School is being built because of a want of accommodation in the present School, which will only hold 400 scholars, whilst there about 600 children on the School's registers.

The Secretary of State for Foreign Affairs learns from her Majesty's Ambassador at Madrid that the Spanish Government has invited tenders for the construction and working of a Telephone System in Mayagüez, in Porto Rico. October 8th is the date fixed for the consideration of tenders, and such particulars as her Majesty's Government have received may be inspected at the Commercial Department of the Foreign Office between the hours of 11 and 6 daily. Tenders are also invited for the construction and delivery at Manila of a steamship required by the Government of the Philippines in connection with the Lighthouse service of those islands.

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BILTON CHURCH, NEAR RUGBY: From a Sketch by C. E. Mallows



TEWKESBURY ABBEY—SOUTH AMBULATORY OF CHOIR: From a Sketch by C. E. Mallows

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The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. IV., No. 80. **Wed., August 19, 1896.**

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"Chill October."

THE cold winds of loss have blown us back, in memory, to that wonderful painting by Sir John Millais. That he could paint landscape had been proved all the way from the "Ferdinand" to the "Flood," but here was something so human (yet devoid of human figure), so inevitable, so sad, you felt as one feels looking from ridge to ridge across a mist-laden and unknown valley—all the sense of possibility of joy and laughter; and of human tears. Only a reedy backwater of the Tay, yet with the beginning and ending—of all Art, of all ambition, suggested in its still, cold reflective face; another way—Millais' way—of saying "the paths of glory lead but to the grave." It is singular that in the hey-day of his robust years he should have painted that first of the unequal but vivid series of landscapes which at once made him the most virile and the most dominant of landscape painters. Sir John Millais knew how to touch the heart—that greatest instrument for any artist—and if he touched it sometimes in the more obvious way it was because he himself in his emotions was frank, and simple, and sincere. He could idealise; he could paint in the devout attitude to religion and to rite; there was a symbolism about him also, that was winning in its simplicity; but there was no morbid psychology nor even of that lusciousness which was the femininity of Rossetti. To use a simile, Millais' Art was not lacking in bone, and the masculine angularity sometimes pressed through the flesh. Yet, once the attack of Pre-Raphaelitism over, he was never crude, and he flung himself so far the other way that he became, as we all know, a very great colourist—perhaps the greatest colourist of his time. That abounding and fruitful sense of power, given to so few, was his, and he never abused or be-littled it, though some of us have regretted his frittering it away in the "Bubbles" epoch, helpful only to the splendour of that magnificent house at Palace Gate. He could afford to allow the steam to fret itself through the valve, for the power behind all his achievement was irresistible. It would be idle here to attempt to widen out in appreciation of so essentially, because so simply, great a man; that very gift of simplicity—breathing the fresh air of his fine altitude to Art—made him so versatile and many-sided. There is a temperament which is at once warrior and child, with the battle-axe of the one and the happy bell-rattle of the other; girding itself with masculine rigour to greatness; happy—the armour off—with a laugh in the sun at nothing more than a nibble at the end of a line. The man who painted "St. Agnes' Eve" invented a salmon "fly;" the painter of "Cherry Ripe," of "Kissing Lips," was the painter of "The Order of Release."



SIR JOHN MILLAIS, P.R.A. *From a photograph by Messrs. Elliott and Fry.*

The whitewashed cottage walls of England owe Millais a debt of gratitude, for in what numberless inns and hamlets have we not seen those reproductions (*vide* "The Graphic") of his work. There was a tolerance, a childish love of appreciation, too in his willingness to allow these popular pictures of his to be so *mercilessly* "reproduced" in "three or five colours," with the dot marks of each mechanical tint in the bottom left-hand margin, left by the colour printer to prove that his statement was genuine! Oh! that *other* guileless simplicity of mechanical Art! We can fancy even Sir John counting the tints, to be *quite sure*, in a great good humour and willing to chase "Cherry Ripe" with "Cinderella. It was a little odd, but it was essentially English. He was always heart-warmed by Colour, and popular applause is a very vivid vermilion; it may even get upon one's palette and that is what eclecticism calls "pandering to the popular taste." But while he stirred the multitude he made the individual, even a lonely soul, pause, as in "Chill October," as in "Ophelia," as in that other landscape, "Autumn Leaves," wherein four simple girls are taught the religion of a purple sunset, and the allegory of a weed fire in a garden. Such diversity in, such play upon, such comprehension of the Small and Great, was but another evidence of his mature mind, his ever-springing youthful fancy. It would be immodest to say in any jingle of sentence what English Art has lost in him, and we shall only know the full measure of deprivation as we seek elsewhere for the qualities which were so peculiarly, so generously, so greatly, his.

SIR JOHN MILLAIS, P.R.A.

A MEMOIR.

HIS position as a Painter. It is, perhaps, enough to mention that the English public will soon come into possession of several of the painter's finest works, for the Tate Gallery will contain "Ophelia," "The North-West Passage," "The Vale of Rest," and three or four more. Owners of many pictures by him were the late Mr. W. Graham, the late Mr. Price of Queen Anne Street, and Mr. Matthews; it is said that Mr. C. Wertheimer has a whole room full of the more decorative pictures, such as "Cherry Ripe" and "Christmas Eve." To attempt to fix the artistic position of all these, or of the artist and his work as a whole, would be as premature as it would be difficult. Time alone can judge, for to time alone must be left the task of assigning to modern Art its relative place by the side of the Art of bygone centuries. At least, however, it may be said that our age has seen no English painter at once so varied and so powerful. He passed, in the course of 50 years of healthy strenuous work, from the ideal represented by "The Huguenot" to the ideal represented by "Saint Theresa," and at least every year he produced what the best judgment of the day pronounced a masterpiece. What exquisite quality and finish in the early work—in the flowers of the "Ophelia," for example! What an understanding of childish beauty in "My First Sermon" and in "The Minuet"! What brilliancy of painting, what sympathy with the root-sentiments of our British nature in "The Boyhood of Raleigh"! What grasp of character, and what power of pictorial effect, in such portraits as the "Gladstone," the "Tennyson," and the "J. C. Hook!" What a power of rendering external nature as the eye of ordinary humanity perceives it in "Chill October"! Immense range, unswerving fidelity, and an almost invariable distinction—these are the qualities in Millais's Art which are admitted by all the World.

THE NOTE DOMINANT.

In all his life that dominant nature of his kept him to the front. Few men who had such cause to believe in themselves did so so naïvely. Sometime in the seventies he had two landscapes going in to the Academy, and there had thronged in to see them the usual crowd of visitors and studio haunters. In those days the visit to the studios was not quite so insincere a function as in these. Fashion was only just beginning to annex the Artist; but Millais was always a prominent figure before the public. He generally avoided these gatherings, but happened on this day to be present. One of the landscapes was a back-water or mill-race, and you saw, across the stream, amongst the trees and underwood, the miller's boy, a dusty figure, busy with his rod and line. The picture was very much admired. The tinsel clink of compliment circulated freely round the room, and Millais took the praise at its value, which was not very high. One lady, very near-sighted, screwing her eyes to see better, contributed her own sentence of praise, ending it with "But why does he ——?" and then abruptly and awkwardly stopped. The artist, deaf to all the adulation, caught a note of sincerity in the unfinished question, and came up to his critic. "What do I what?" he said. The near-sighted lady hesitated. He pressed. "Why have you put a statue in that wood?" she said. Millais took up his brush and gave the miller's boy a scarlet necktie. "And now," he said to the lady, "you may say you made Millais alter one of his pictures." Such a charming, naïve belief had he in his own fame.

HIS BOYISH SIMPLICITY.

For there was this noticeable about the man, that with all his egotism he was very popular. He thought highly of his own work, rated it at its full value, but he was generous in his judgment of the work of others. He was always insisting how much better the young men painted than the old, and always ready to help on a young man who had merit. The fact was there was a boyish simplicity, an absolute honesty, a complete absence of finesse about him, all of which were very captivating as well as very unusual. His heart was on his sleeve, and the heart on his sleeve was a great big, throbbing, human heart. And so he made his impression quite as much by the strength of his nature as by his extraordinary talent. There was so much simplicity about him. He had a picture a few years ago—a landscape with moonlight. "I've got a quotation for it," he said; "'The moon is up, and yet it is not night.' It is in Byron; a lady found it out." And he spoke of the wonderful attribution of that quotation with a kind of triumph.

THE MASTER OF TECHNIQUE.

Beyond all artists practising in England, Millais was the master of technique *par excellence*. It may be that his artless question when a youth—"Art is one thing and nature another, isn't it?"—gives the key to his extreme catholicity on this point. "I tell you what it is," he remarked a few years ago, "men think too much of the technique of Art nowadays, and too little of the spirit. Technique is necessary and fine as being the painter's craft; and the finer it is the better. But it must not be allowed to swamp the spirit. The spirit is more important still, and the public is perfectly right in looking and asking for it." Equally did he objcet to the narrowness of modern "schools" and the petty prejudices of artistic cliques. "It is worse than folly," Millais would say, "for young painters to think that the men they worship are the 'only ones'; or, as many do, that Velasquez is the only Old Master worth looking at. They might as well say, 'there is only one flower, and that is a poppy, or a rose,'"—and then he would enlarge on the necessity of every student and every painter keeping his Art-view large and liberal. Whenever he himself visited the National Gallery, he would first go to examine the Van Eyck and then the wonderful little Bellini—the very antitheses of his own later method. "Painting is quite hard enough," he would explain, "without narrowing one's vision or focussing one's idolatry."

THE HUMANITY OF HIS PICTURES.

His pictures appeal to us sometimes by the mere force of beauty and sometimes by their plain pathos and their noble humanity. "The Huguenot," for example, who refuses to accept from his lady the badge that is to save him at the expense of his honour, is popular just as Colonel Lovelace's famous lines have been popular for more than two centuries, and for precisely the same reason. "The Highlander," again, whose order of release is brought to him by his young wife, is as pathetic and as popular a figure as can well be put upon canvas. "The Black Brunswicker," and "The Gambler's Wife," are in much the same vein of sentiment. "Cinderella," even in its sixpenny reproductions, has delighted children of all ages; a still more recent picture, unhappily lending itself to the purposes of advertisement, has been an isolated thing of beauty on all our hoardings. Certainly no painter of any eminence has been a more general favourite, while preserving his art and his refinement, than Sir John Millais.

HIS GREATEST TWENTY YEARS.

On the whole, the twenty years that followed 1871 may be taken as the period of Millais's greatest work, for, besides these landscapes of somewhat unequal merit, he produced at this time such well-known pictures as "Yes or No?" with its less successful sequel "Yes"; the "Princes in the Tower," and "A Yeoman of the Guard"—remarkable if only for black velvet and dexterous scarlet respectively—"Cinderella," which an illustrated journal soon reproduced and sent to the ends of the World; "Sweetest Eyes were ever Seen," Cinderella's model, apparently, but a year older; and "An Idyll of 1745," in which two or three timid little Scotch lasses listen, after Culloden, to an English soldier-boy who is playing the fife for their amusement. All these, or certainly most of them, have been rendered familiar enough by engravings to justify our earlier remarks as to Millais's popularity. If they pleased the public, so much the better for the public. Unpopularity is neither a criterion of Art nor a moral obligation. But still greater works than these belong to Millais's last twenty years—that is, if portrait painting is the artist's greatest achievement.

A LAST "LOOK ROUND."

There was something very pathetic in the way Millais lingered round the Galleries of the Academy during the last days before it opened, for the first time under his Presidentship. He was in the rooms on the Saturday before the private view, the last of the Members' varnishing days, shaking hands with old friends, and saying, in a hoarse whisper, which told its tale tragically enough, that he was better. He came again on Monday—that was the Outsiders' Varnishing Day. The Galleries were full of painters, young and old, hard at their work, much to do and little time to do it in, when someone said, "Millais is in the next room." Young men and old, they all looked in, mournfully realising it might be the last chance to see the greatest of their brethren. There he was, leaning on the Secretary, and slowly going his round. One young painter, perched upon a ladder, varnishing his canvas, felt his leg touched, but was too busy to turn round. Again he was interrupted—it was the President, who in a scarcely audible whisper, wished to congratulate him on his work. That was Monday. He came again on Tuesday. There was discussion amongst a few of the members about a picture that in the hanging had not got so good a place as it deserved. Take one of my places for it, he said, and he meant it. It was not the first time he had offered to make way, giving up his own position to an outsider. On Saturday, May 2nd, he was there for the last time—to receive the Prince. But now the disease had made rapid advance, and he was not able to take a last walk round the rooms. He loitered behind, and when the Prince heard the cause he insisted on his returning home at once.

"THE PUBLIC WON'T LET ME."

Among the subject pictures painted in the new studio was a single figure of a girl, called "Shelling Peas," afterwards presented to Lord Leighton. While in progress a friend spoke admiringly of the background, which, though only vaguely rubbed in, was sufficiently in tone with the figure and admirably suggestive. "If I were you, Millais," remarked the friend—who was also a limner—"I wouldn't put another touch to that background." "Nor would I if I had my way," said the other artist; "but the public won't let me. They would say that the background was unfinished, or only canvas daubed over." All the same, that sketchy background was never touched again, or very slightly, greatly to the value of the picture as a whole. We forget who sat for "Shelling Peas." But it is pretty generally known that Millais availed himself rather extensively of the services of personal friends for many of his best "fancy" pictures. Many of their names have been mentioned in print, and these include the artist's entire family.

HIS MODELS.

The future Lady Millais did duty as model for the wife in the famous "Order of Release," exhibited in 1852. Miss Ryan (afterwards Mrs. Coventry Patmore) served similarly for "The Angel in the House" (same year), and also for the female figure in "The Huguenot" and for "Ophelia." The Huguenot himself was General Arthur Lempriere, of Jersey, whose family were on intimate terms with the Millais'. The girl in the "Black Brunswicker" was painted in 1860, from Mrs. Perugini, the second daughter of Charles Dickens. For "My First Sermon" (1863) the artist's eldest daughter, Effie (afterwards Mrs. James) sat, and ten years after she stood for "New Laid Eggs" while her sister performed a similar duty for "Forbidden Fruit." Many other notable works of the kind were derived from the artist's children, and only in one case were the sittings remembered with sadness by the parents. This was in respect of the "Boyhood of Raleigh," painted in 1870. The two boys figuring in the composition were portraits of the artist's two sons, and one of them, a pretty, fair-haired lad, never lived to be a man. The three Millais daughters—Effie, Mary and Caroline—sat in a group for the picture of "The Sisters," whilst "Sleeping," "Waking," and "The Minuet," were obtained from the same sources. A friend once remarked that

marriage in Millais' case had proved a highly lucrative investment, as the profits derived from the family posings had from first to last been worth some thousands to the artist. In 1868 Millais had for a sitter a pretty, fair-haired child named Nina Lehmann. She was painted seated gracefully upon a china tub. Some years after the same subject performed much the same duty in a different pose. But her name was then changed to Lady Campbell, and that name was attached to her portrait. The head of the old man in "The North-West Passage" was that of Trelawney, a famous explorer, and the ever popular "Cinderella" was a daughter of Buckstone, the actor.

A Favourite Recreation.

The artist's favourite recreation in town was whist, in which he was considered a proficient, and he was often to be seen in the afternoon, when the day's labours at the easel were over, in the card-room of the Garrick Club, to which place he would walk, if fine, from Palace Gate by way of exercise. His love of whist may have suggested the subject for the artist's most striking portrait group of three young ladies playing the game with a dummy, which, under the title "Hearts are Trumps," became one of the Academy sensations of 1872. "The last occasion of our meeting," writes a friend, "was as recently as February 11th of the present year, shortly after his nomination to the presidential chair of the Royal Academy. Of course I congratulated him upon the approaching honour. But he did not seem to regard it as a subject for much felicitation, and remarked, in explanation, "The duties promise to interfere with my private work, though I intend to ask for half-a-dozen secretaries at least." He spoke then, as he had done for more than a year past, in a husky voice and almost in a whisper, while his deafness in the right ear was so great that in walking on he presently halted, and, taking me by the shoulders in his playful, unceremonious way, placed me on his left side, saying, with a delightful glance, "Now, sir, I can hear you better." Upon my asking presently whether he felt equal to preside at the forthcoming banquet, he said, "Oh, dear me, yes! Why, I was in the chair last year and my voice was as bad as it is now. But they heard me right enough. Still, I rather think there will be no dinner this year on account of poor Leighton's sad death."

His Work in Illustration.

It must not be forgotten that while in his early and early-middle period Millais was painting, and proving a dexterity beyond all previous experience, he was achieving a success not less absolute in the domain of illustration and drawing upon wood. In "Once a Week" and "Cornhill," not to mention other individual works, Millais joined with Sir John Gilbert, Mr. Sandys, Fred. Walker, Pinwell, Mr. Du Maurier, Mr. Holman Hunt, and others in founding the great new school which had, in a measure, been inspired by the wonderful works produced by Menzel for his "Frederick the Great." Inspired only: for the new men were wholly original; and the greatest of them all was Millais. Not only did he head the band of the new emancipated school of wood-draughtsmen (for his draughtsmanship was more brilliant and suggestive than even Walker's), but by the force of his genius and persistent personality he helped to revolutionise the Art and craft of wood-cutting. It was for this reason that he had so deep a love for black-and-white illustration—a thing, generally speaking, unusual in a born colourist—and that he maintained before a Royal Commission that the black-and-white Art, with John Leech as the apostle of it, should be properly represented in the home and included in the ranks of the Royal Academy.

The Rev. C. W. Grove, who recently died at Tewkesbury, was widely known as a most munificent donor to Tewkesbury Abbey. In addition to large pecuniary donations towards the restoration and maintenance of the historic edifice, the fine stained glass west window was put in at his expense, as well as ten windows in the Nave and the east window in the Ambulatory. The large modern Organ and a brass Lectern were also his gifts.

EQUILIBRIATED FOOTINGS OF FENESTRATED WALLS.

The frequency of the occurrence of cracks, fissures, bulges, and distortions in fenestrated walls of buildings is due to an unequal distribution of the loads on the footings underneath the pier portion of the wall, and thus producing an excessive pressure upon and unequal settlement of that part of the foundation soil. In old buildings a central girder frequently ran into a pier between a pair of windows, thus causing the unequal loading which in turn produced a deeper sinking into the soil than the contiguous bay parts of the continuous foundation underneath the fenestral voids. Another common source of cracks, &c., in dwellings is the wide doorway with sidelights, whereby the imposts of the broader opening are more heavily loaded upon the foundations than the portion under the void. It is only the part of the foundation wall underneath the lowest void of the bay portion of the wall that produces direct pressure on the soil underneath the bay. The other wall transoms between the vertical tiers of voids have their weights and external loads transferred to the piers on each side equally. A fenestrated wall thus consists of the piers or vertical continuous solids, and the bay of vertically alternate voids, and solids at the floor levels. Unequal settlements of the continuous foundations must naturally follow this manner of unequal unit loading of compressible soils with its unequal reactions. Hoop-iron bond has been employed for over half a century for the purpose of counteracting the tendency to cracking and distortion of fenestrated walls, as effects of unscientific design of foundations.

Inverted Arches.

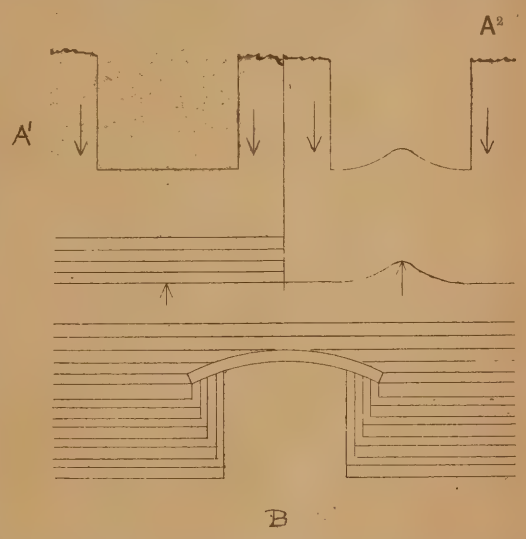
The inverted arch is another expedient of more restricted application. It is used under wide openings, and is intended to impart the properties of a reinforcing beam, but it only imparts the compressive resistance on the lower side of the beam arrangement. It fails, however, to afford any reinforcement of tensile strength, and, therefore, does not fulfil its assigned purpose to act as a beam. This pseudo beam, or the ordinary form of masonry underneath the lowest void, Fig. A^1, is supported in the centre and loaded at the ends in the directions of the arrows by the imposts of the piers, which receive their maximum loads by transference from the bays. The support in the centre of the masonry beam is derived from the reaction of the centre, partially loaded, foundation soil. The soil under the bays has an upward reaction equal to the difference between the maximum loaded impost of the pier and of the partially loaded bay. We may, to illustrate this, assume a moderate case of a London house, of a maximum load of three tons per square foot on the pier impost, and of a quarter ton per square foot on the partially loaded bay. The difference of $2\frac{3}{4}$ tons per square foot of upward reaction acts on the bay footing area with a maximum leverage of half the width of the opening. There needs, therefore, be no surprise that cracks and distortions are thus produced in superstructures as are frequently to be seen in districts where the foundation soil is clay or compressible soil. Fig. A^2 is an exaggerated appearance of this upward reaction, showing two reverse semi-eliptic curves joined at the apex.

The Equilibriation.

A fenestrated wall thus partakes of the principle of independent piers with intervening transoms or arches, and, therefore, continuous footings are inimical to equilibrium. The axial loading areas should be central to the distribution of the footing areas. The centre of gravity of all the loading points upon the fenestral piers, as regards their relative weights and positions, is the axis of loading. This axis is, therefore, the centre of the pier footing area, and the footings should be returned symmetrically round this area, with the proportionate projection of offsets. The footings, returned squarely from the front, are shown in Fig. B, which is an isometrical projection as if seen obliquely from above, combining plan and elevation. Since the pier footings are thus returned at the bays the continuous foundation wall must be supported across the bay, from which the footings are thereby removed, by an arch springing from the returns of the pier footings as in Fig. B. This arch may be of one or more rings of brick in depth according to the extent of the span, and if basement floor joists are supported by it, its strength should be adequately increased.

Built-up Footings—Transverse Strength.

In brickwork footings the transverse strength is often deficient, which aggravates unequal settlements, due in the first instance to excessive loading of fenestral piers transferred from the bays. The failure of the footings in such cases, which act as cantilevers, takes the form of opening of the back or inner joints, whereby the footings become split up into two bent levers, or cantilevers. When the footings are four or more bricks (headers) wide subsidiary cracks develope in time in one or other of the cantilevers. The transverse strength of brickwork footings when more than two bricks (headers) in width must be gauged, not by the transverse strength of the single bricks, but by the adhesive strength of the mortar. Brickwork of good hard bricks, carefully laid in good stone-lime mortar, can only be taken at about 40 lbs. per square inch of cross-section as its centre breaking strength. This is equivalent to 720 lbs. (40×18) per square inch of modulus of rupture. In round numbers this would be about 7-8ths



of the modulus of rupture of single sound hard common brick, while it would be about five times that of soft bricks.

A new Free Library is being erected in Antrim Street, Belsize Park, at an estimated cost of £2,300. The building will be one of a series of branches of the Central Institution in Finchley Road, and will occupy an area of 5,200 ft., the site having been purchased by the Vestry from the Ecclesiastical Commissioners for £400.

According to a Paris correspondent historic Malmaison is to be put up for sale by order of the Civil Tribunal of the Seine. The place is in a state of gross neglect, the house itself being practically a ruin. The upset price of the whole property is 101,600 fr. Josephine de Beauharnais, then Madame Bonaparte, bought Malmaison for 160,000 francs. The Empress Josephine died at Malmaison on May 29th, 1814, her body resting in the Parish Church at Rueil close by.

There is some chance of making a beginning with the Dublin Main Drainage Scheme, which was agreed to early in the year. The project is an intercepting sewer. In connection with the proposed works the Corporation have acquired from the Government the Pigeon House Fort, at a cost of £65,000, after payment of which there remains of the loan only £80,000. The contractor, however, is bound to commence at whatever point or points and in such portion or portions as the engineer may direct,

THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

THE A. A. TOUR.

BY OUR SPECIAL REPRESENTATIVE, WITH STROLLING SKETCHES BY JOHN BEGG.

WE all know how difficult it is to arrange to find leisure for even a week's sketching tour. When that amount of difficulty is multiplied by twenty-four, or thereabouts (the number of men who represented the Association in Kent and Sussex last week), one arrives at an idea of the importance of this annual event.

Still, however important, it is hard to write about it in an interesting manner. The *motif* of any article describing a town is necessarily identical with the *motif* of the town itself. This, again, must needs depend on two things, the interest of the scene of the town and that of the personality of the tourist. Now, to nearly every reader who is only human, the personal, the human interest is sure to be the more enticing: but when your tourist consists of a company of twenty-four men, your interest becomes divided among twenty-four personalities—becomes in fact twenty-four interests. When we read of Napoleon's wars, it is our sympathy with Napoleon (or his fascination for us) that helps us on, and we do not seek to divide our sympathy among the individuals of his army. How much more charm has the history of an empire, which hinges on the person of the emperor, than that of a commonwealth! It is true our little army carried with it its emperor—the President; but with him also, claiming a share of your sympathy, went three Past-Presidents, a Vice-President, and last (but very far from least) an Honorary Secretary. And the A.A. is a commonwealth in whose little field-force of volunteers for the Autumn manœuvres, everyone, even the President, ranks but as a citizen and a private soldier. So for a *motif* we are constrained to try the interest of the scene of operations, and here again are difficulties. For the scene of operations has been chosen more or less on account of the strategic advantages of the headquarters—the good house of the Castle Hotel, Tunbridge Wells; and while rest and reflection for body were there unvarying in excellence, the food for mind in the surrounding country varied much both in character and quality. I must, therefore, crave your kind indulgence if my account of the town seems to waver in intention between the tourists and the things they saw—of the things they ate and drank you would not care to know. Twenty-four (or thereabouts) good men and true, escaped away, some of them from wives and families and other cares, most of them from Town (where there is care enough)—all from work, found themselves on the morning of Monday, August 10th, about the hour when the T square is wont to be dusted, *en route* by train from Tunbridge Wells to Etchingham, there to begin proceedings (as is ever only fitting) on holy ground.

Etchingham Church is an interesting one of the fourteenth century, and with a plain massive central Tower. It has a very satisfactory plan, and presents a fine lumpy mass externally. This immediately attracted a swarm of our "lightning sketchers," who in turn seemed to attract some thunder clouds—result, a stampede for the shelter of the interior.

We drove off in pelting rain, but this had ceased before we reached Ticehurst, some four miles distant. A quaint village this, but the Church is the chief attraction, partly for the Tower (a western Tower) and the treatment by which it is joined to the Nave by powerful buttresses taking the thrust of the Tower arch, but most of all for the splendid stained glass. We burned to draw this, but the shortness of our time and the necessity of lunch prohibiting such an undertaking we found ourselves without heart to attempt anything else. In one window there is a canopied border, with angels worked in among the canopies, that beats any bit of the kind in glass design I ever saw. The drawing is delightful, the colour exquisite—words cannot describe it, you must go and see it for yourself.

About five miles south-west and a few miles apart are two good Elizabethan Houses, Holmhurst and Bateman's Farm, the latter of which is really very fine. I think I speak quite critically, uninfluenced by recollections of the hospitality of the kind tenant of Bateman's. Even that was forgotten when, on driving into Burwash, we caught a glimpse of the eighteenth century Houses there. The Church is the guide-book attraction of Burwash, but even that proved a star of very minor magnitude compared to Mr. Freeman's House, where we revelled in plaster-work of the best, a staircase and a doorway, if not to rave about, at least to draw and reproduce at the very next opportunity; and very unwillingly you may be sure it was that we answered the call of the secretarial whistle announcing time to drive off to catch our train. Then back to "The Wells" we went to dine, and afterwards to walk the Pantiles, to "take the air" and imagine ourselves back again in the days of the beaux, ere the snuff-box had been ousted by the cigar and the cigarette, and when such a marvel as twenty-four Architects met togther in one spot would scarce have been dreamed of.

On Tuesday we started off in a similar direction, and drew a large circle over the country, visiting Wadhurst, Mayfield, and Groombridge. Wadhurst has a large Church with a timber spire, shingle-hung, and con-



tains a number of interesting cast-iron floor slabs, but our tastes took a picturesque turn, and most of us went for peeps down the village street and bits of the crumbling tile-hung cottages. A short drive took us to the charming village of Mayfield. Here we descended on the "Palace" (now a Nunnery) which St. Dunstan built, they say, and where for centuries the archbishops of Canterbury were wont to dwell. Here the lion is the great Hall which now forms the Nunnery Chapel, built by Archbishop Islip about 1350. Its characteristic feature, shared once by the Guildhall, London, is its open timber roof whose purlins rest on three great stone arches 39 ft. in span. The thrust of these is met by splendid buttresses, between which are segmental arches placed longitudinally over the side windows. The Church of Mayfield repaid a visit, for it has some fine Perpendicular woodwork (bench-ends, choir-screen, Aisle-roof) and a couple of splendid brass twenty-four branch candelabra. There

themselves away from the second tea which here fell to our lot this afternoon, found time to make a few sketches to remember it by. It is a plain enough brick house, *made* first by the charming stone Portico "in the Italian manner," and second by the complete moat that surrounds it, with the stone bridge and gates opposite the Portico. The place breathes of bye-gones, English bye-gones. "An English Home" is the phrase it seems to call up in your mind, and you look at the Italian Portico and the Indian peacocks, and worship them as English too. The place is charming, yet it is hard to say just where the charm comes in, for the house is an ugly one, though redeemed by the Porch; yet without this it would, one feels, still be charming.

We drove on Wednesday to Penshurst and there spent a most enjoyable forenoon. The road soon took us among a sprinkling of modern Houses and Cottages of very decent design, where the bear and ragged staff—the

mention among so much, that may be the silken hangings in the second room, and the Holbein tapestries in the third. What a fine proportion the Gallery shows! What endless "tips" are to be got from the furniture of these rooms; what delicious patterns from the old stuffs of curtains, chairs, cushions! Then what a trial it is to fingers that itch to draw the Great Hall roof, or the tracery of the windows, or the picturesque groupings of turrets, windows, chimneys, all round the exterior and in the courtyard, to know that there are Devey's delightful gardens to be seen, with their tall yew hedges trimly clipped, making innumerable vistas of heavenly sweetness! That in the owner of Penshurst Devey must have found an ideal client was admitted on all hands, and that he would also have found him an apt pupil had he lived was amply proved by a visit to the garden which Lord de L'Isle has added to the Vicarage from his own design. Our punctual Secretary's whistle never sounded more un-



CHIDDINGSTONE: VILLAGE.

are several good houses in the village—of course the well-known "Middle House," dear to lovers of half-timber work, and dear to us for evermore for its owner's most undeserved (and, indeed, most unexpected) hospitality. But best of all is the house opposite, which might be drawn, but cannot be sketched—a Gothic house of stone—made Georgian by removing tracery and substituting sash windows, and by adding a charming porch, steps, and front gate and railings. It may not sound attractive, but it is.

Then a long drive took us north to Groombridge. A drive through some of the finest scenery in East Sussex, on a perfect day, with glorious panoramas opening out now on this side of the hilly road, now on that, along the crest of a ridge, then driving into a valley shady with woods of pine, oak, birch, or brilliant with purple heather. A drive to remember.

Groombridge Place is also something to remember, and those of us who could tear

badge of the Dudleys—mark the possessions of Lord de L'Isle, and call attention to the fact that the good taste which produced these Cottages is that of his lordship. The village of Penshurst is full of material for the sketch-book—the Street, the Forge (modern), the Vicarage, the Church. But here (as at every place we have visited on this excursion) there was so much to see that sketching generally meant a waste of time, so what time we had we mostly spent at Penshurst Place, the lion, of course, of the neighbourhood. After we had given over a few minutes to the vanity of our noble selves, by submitting to a group-photograph at the hands of our honorary amateur photographer, we attacked the House in full force and took it by storm. I will not attempt to rival Murray's Guide by giving any description of this noble pile. Neither will it serve any purpose to dilate on our impressions of it. We wandered through the rooms of the main suite, which Devey so splendidly restored, feasting on the treasures there. If anything can be selected for special

welcome than when it announced that the time had come for us to tear ourselves away from Penshurst, and we went consoling ourselves (the most of us I would be bound) by promising ourselves another and a longer visit in the near future.

The village of Chiddingstone was our next halting place. Here the party broke itself up into two camps, one bent on transferring as much of the Church to paper as could be done in twenty minutes, the other hungering to devour the famous half-timber Houses in the village street. These are singularly perfect as far as their state of preservation is concerned—indeed few better examples are to be found in this quarter of England; so many eager foot-rules toyed lovingly with their scantlings.

A three-mile drive next took us to Mr. Samuel Morley's House at Leigh—a work of Devey's, where the chief interest lies in the formal garden, and in the masterly way in which the Architect has set his House on the ground. To come here after Penshurst—

from an old to a modern Country House—gave us an object lesson too useful to be missed.

The fourth day was spent in Canterbury. Our modern pilgrims travelled through the heart of Kent amid delightful Kentish scenery. Here and there would come to view, now a home-like farmstead, with its hop-fields and oast-houses; now a quaint village, with its Church rich in warm colouring; now a picturesque windmill. And always the same rich country, and the hedgerows by the railway side straight and full and trim. The pilgrimage was a more rapid one than that of Chaucer's heroes, but his pilgrims could not have been more keen to reach their destination, nor did they beguile the way with tales more pungent or more witty than you may be sure did those of Thursday last.

Under the able guidance of Mr. Clarkson the party was driven first to the Hospital of St. Nicholas, at Harbledown, a Leper-House entering by the noble West Gate. We made mental notes of the scores of "bits" of street Architecture that our fingers itched to draw; we let those fingers have a little relief over the Bridge Hospital and the gateway of St. John's Hospital, and settled down to a more systematic examination of the ancient Monastery of St. Augustine's (once the Cathedral's rival), now connected to a College by the aid of Mr. Butterfield. Here the interest is mainly archæological (though I mean no slight to the Architect just named), and we had an opportunity in the massive ruins of the Church of studying the peculiar features of Norman masonry.

The afternoon was well advanced before Mr. Clarkson handed the party over to the care of the Cathedral vergers. To enumerate the buildings that we had meanwhile been shown would be to trespass on the sphere of the guide book, as it certainly would to give any description of the Cathedral itself. There was time for no more than a walk waiting to be drawn, of object lessons for the student, and of historical interest without end; and here one may find a feast, be he Painter or Architect or Archæologist. We returned to headquarters with empty sketch books, but with full satisfaction of having spent a day as tourists of the highest order—and there is no tourist of a higher order than an Architect at Canterbury.

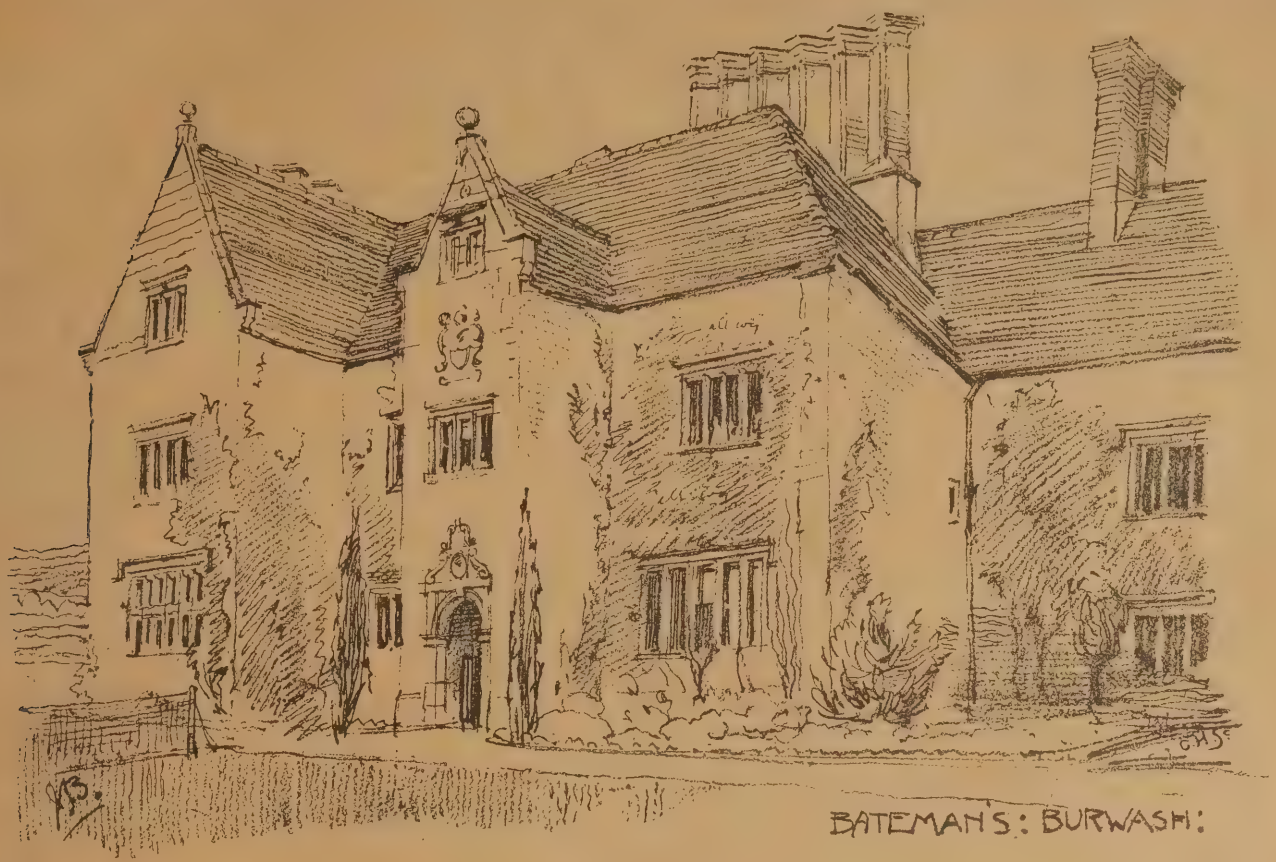
The last day of the excursion (Friday) dawned wet and miserable, and the party started off with spirits just a little damped. The train took us to Sevenoaks Station, and from here we drove, mackintoshed, to Knole Park. Friday is the regular public day, but to the Association the privilege was extended, by the kindness of Lord Sackville, that we were allowed to swarm all over the house and draw whatever we would. But what an *embarras de richesse* we found ourselves among! The plaster ceilings, the fireplaces, the splendid "Brown Gallery;" then the carpets, the furniture, the pictures! The



FROM HOUSE IN BURWASH VILLAGE.

in Chaucer's time, where there is a quaint Chapel (Norman and Early English), with a sloping floor, and where there are also many fine relics in the Hall. The Chapel interior gives a lesson in the use of colour-decoration. The painting, which can be distinctly traced, is applied all over to an interior that is almost devoid of mouldings—nothing but colour and the proportion of the Chapel. We were called away all too soon, and when we had climbed again into the carriages, and our most greedy sketcher had made his usual narrow escape from being left behind, we were driven into Canterbury along the Pilgrims' Road. One is invited here to realise that this is the view the pilgrims got with their first peep of the Cathedral, but that is a tax on the imagination severe to most, for the town one sees is as a lake to a pond to what they saw, and the Cathedral had then of its three Towers but the central Tower alone.

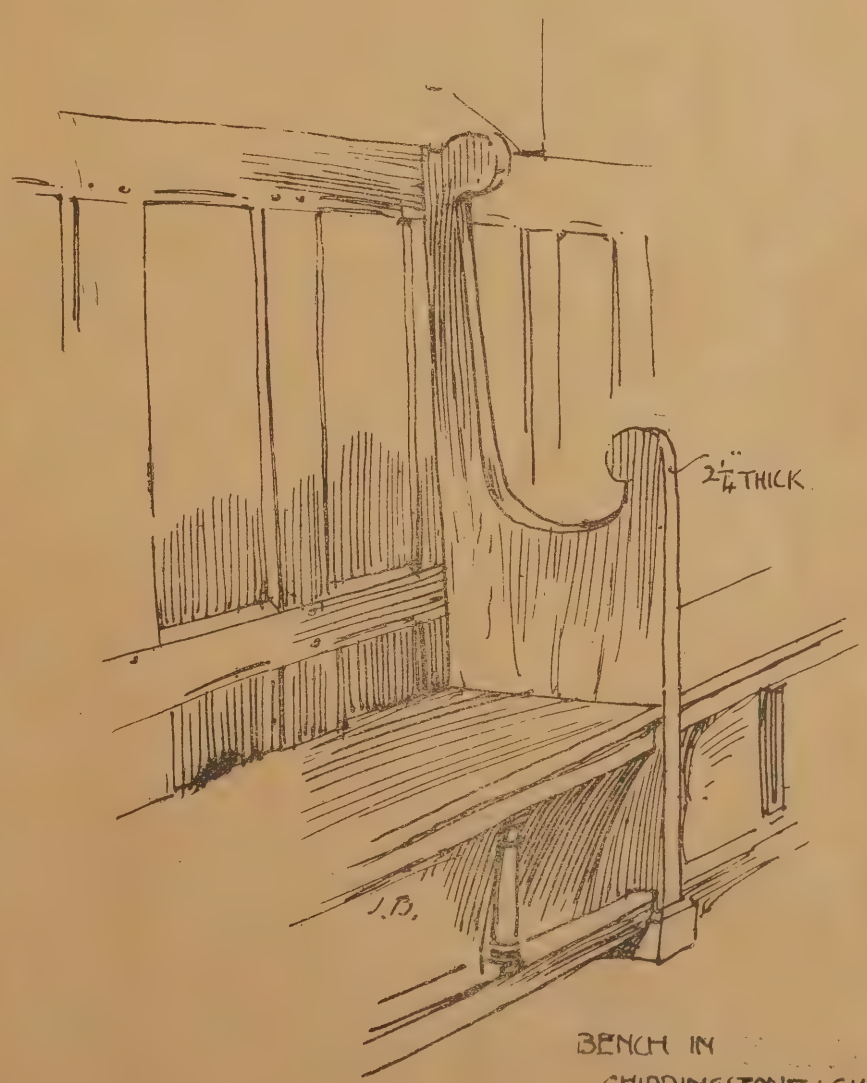
The most of the day was spent in driving to the chief points of interest in the town, round, conveying to those who had not seen Canterbury before (to their shame there were many such in the party) but a confused idea of its glories. Lanfranc's magnificent Crypt was first visited, where now the Dean and Chapter's excavations show the fine proportions of the massive piers, and where you may see the piers coming boldly down through the vault to carry the later Choir, and the beautiful picture made by the later Crypt under "Becket's Crown." Then we were led to William of Sens' Choir, and saw how his mantle fell on the English William in the Retro-Choir. What an endless field for the student we have here! What stone and woodwork, what bronze and iron! One thirsted to measure the beautiful wood canopy over Bishop Kemp's tomb—to draw the westernmost stalls and their canopies, and the Renaissance Bishop's throne, which modern enlightenment has discarded in favour of one in "Gothic." But I need not further catalogue the things we saw. Canterbury is full of ready-made pictures, only house is a perfect museum of everything that an Architect (in the widest sense of the term) delights in, so that one felt reduced to a state of mere helplessness in the presence of so much magnificence. One was torn by conflicting desires—to see everything and miss nothing, yet to carry away sketch-book memoranda of as much as possible. The exterior is rich in material to the draughtsman's hand, and of the gardens it would be impossible to convey by mere words any adequate impression. There is a delicious formal garden, with a small pond in the centre, all sunk deep in surrounding grassy banks, and all around is the noble park with ancient beech trees, and deer feeding peacefully on the grass at their feet. If we had been delighted with Penshurst we were still more charmed with Knole, and regretted keenly the rain that made it impossible to sketch it; but as we had done at Penshurst, we here comforted ourselves with a resolve to come again soon. As we were leaving the sun struggled once again through the



BATEMAN'S: BURWASH:

clouds, and for the remainder of the day we enjoyed the most perfect weather.

Then Ightham Mote. But first might have been seen the strange spectacle of four-and-twenty men camping right across the public highway, just beyond the village of Seel, merrily but industriously demolishing a sandwich lunch. This over, to the wonderment of the natives, and the debris cleared away, the party drove off once more, and no time was lost in getting to work at the Mote House. Inside there is not much of interest when you have seen the Hall with its stone arch acting as a roof principal (like those in the Hall at Mayfield Palace), and the Drawing Room and it curious old wall hanging of painted paper. But in the quadrangle and round the outside are plenty of pictures for the sketchers, who soon went to work, some with pencil, some with water-colours, for which the rich colour of the brick and stone, tile and timber, and this with the trees reflected in the water of the moat, formed a tempting opportunity. The Elizabethan stables, their half-timbered gables rising over the trees, also made a picturesque group; and when the whistle sounded for the last time on this excursion it was with no small unwillingness that books were shut and camp-stools packed up for the return drive to Tunbridge Wells. With this day the excursion practically ended. That evening the occasion was marked by the usual after-dinner speeches—by a general display of sketches, and criticisms full and free—and then by a "sing-song," such as is dear to the heart of the good fellows who had spent the week together. But, loath to part, the Saturday saw still a goodly number haunting Tunbridge Wells, where the quaint "pantiles" gave material for many a picturesque sketch, and the fine Queen Anne Church, which Thackeray has immortalised in the "Virginians," attracted many to draw the splendid plaster ceiling, and the bits of rich (and useful) detail that this building has in plenty.



BENCH IN CHIDDINGSTONE: CH:

SCARBOROUGH Workhouse is to be enlarged at a cost of £10,000.

A REVOLUTION IN ELECTRICITY.

ONE of the latest, and probably, from what can be gathered, one of the greatest discoveries in the march of industrial inventions, is the apparatus just recently constructed by Dr. W. W. Jacques, electrician to the Bell Telephone Company of Boston, for the production of electricity direct from the consumption of coal. It is claimed for Dr. Jacques's invention that it is capable of converting into electric energy 85 per cent. of the potential energy in the coal put under the furnace. This represents an advance upon present appliances which is simply enormous. The "scientists," of course, are thoroughly well aware that we have not been getting out of present machinery, electrical or other, results adequate to the coal consumed. Heat, as everybody knows, is concentrated energy, and, since upon the basis of the metrio-centrigade measurement, a unit of heat is equivalent to 424 units of "work," it is easy to calculate the amount of "horse-power" which ought to be got from the burning of a ton of coal, provided the heat could be fully utilised. But, to quote a well-informed writer on the subject, "the most improved triple-expansion engines have a thermo-dynamic efficiency not exceeding 19 per cent." Hence, even with the best mechanical appliances at present, four-fifths of the potential energy of the coal is not represented in the results attained. The greater part goes up the chimney shaft and is simply wasted. To produce electricity with steam power as an intermediary necessarily involves further loss from friction, for, whilst the best steam engines only represent 19 per cent., the best dynamos driven by steam power only give 17 per cent. of the energy of the coal consumed; and we are told that "in actual practice 10 per cent. represents a good result." The inevitable consequence has been that in spite of its manifest utility, electricity has remained dear; and though it has to some extent enlarged the field of industrial operations and added to the convenience of life, it has not had an influence upon things equal to steam. If, however, the invention of Dr. Jacques is what it is represented to be, all this is changed. It is manifest that if Dr. Jacques has succeeded in producing eight and a half times as much electric energy for the same consumption of fuel, and with far simpler mechanical appliances, he has rendered electricity at least twice as cheap as steam, and that steam before long will entirely cease to "pay." The appliance by which this is achieved consists of a pot of pure iron, surrounded by a suitable furnace. Into the pot is placed a quantity of caustic soda, and into the soda, which is reduced by the furnace to a state of fusion, is dipped a thick carbon rod, or prism. Beneath the carbon prism, and immersed in the molten caustic soda, is a hollow metal "rose," perforated with numerous holes, and connected by an iron pipe with an air-pump. From the air-pump jets of air are forced into the caustic soda through the rose, the furnace being meanwhile heated to between 400 and 500 degrees centigrade. The electrolyte (the caustic soda), thus impregnated with air, takes up oxygen in excess. The oxygen then attacks the carbon, which is gradually consumed. The result is the formation of large quantities of electricity, which is collected in the iron pot, forming a powerful current, flowing back to the carbon prism as the negative electrode. "The efficiency of 85 to 90 per cent. claimed for the Jacques apparatus is vouched for by distinguished electricians," and it is reported that from a Jacques battery of 100 cells, 12 ins. deep and 1½ ins. in diameter, a current was obtained averaging 90 volts and 16 amperes, and supporting thirty 16-candle power electric lamps for nearly 19 hours. The carbon consumed in the pots weighed eight pounds, the current representing 94 per cent. of the potential energy. In addition there was the coal for the furnace, the amount of which, however, has not been stated. The question that remains in abeyance about the invention is whether or not heat is absolutely necessary to the process. If a high degree of heat proves to be necessary, the percentage of results now claimed may on further investigation have to be considerably reduced. But it seems clear that a means has been discovered of rendering electricity cheaper than steam, and that means, in any event, a great step forward in industry and commerce.



THE A.A. TOUR: AT PENSHURST PLACE: FROM A SKETCH BY JOHN BEGG.

FOR the construction of the Marine Drive and Sea Wall Extension, at Scarborough, the tender of Messrs. B. Cook and Co., Battersea, amounting to the sum of £69,270, has been accepted, subject to certain formal conditions.

THE directors of the Peninsular and Oriental Company have acquired an extensive frontage on the river Thames, with the view, it is reported, of constructing their own wharves and warehouses, thus making themselves independent of Dock Committees, with their burdensome charges and constant disputes. In other words, they are to become their own dock-masters, and provide every accommodation on the river for their own fleet of vessels.

THE movement for the rebuilding of Wombwell Parish Church will have the thorough support of the inhabitants of the little colliery town which lies midway between Barnsley and Mexbro'. The present Church is at once ugly and unpretentious. So ugly, indeed, is it that had it been more assertive it must long ere this have been removed.

THE projected public improvements in the centre of the town of Chapel-en-le-Frith may now be regarded as settled, a communication having been received from the Highway Committee of the Derbyshire County Council, giving its sanction to the same. Some of the oldest property in the town will be demolished, and a new street 30 ft. in width constructed to join the Midland Station Road from the main street.

THE ARCHITECTURE AND BUILDINGS OF CHINA.

UNLIKE other nations, the Architecture of China has retained its own particular character during all times, without any changes and uninfluenced by that of other countries. The origin of building is ascribed to the Emperor Fou-Hi in 368 B.C., but there does not exist any building of that date, probably from their being generally constructed of wood, besides, in the year 246 A.D. all the existing buildings of importance were destroyed by order of the Emperor, so that there should be no record of the power of his predecessors. The type of all Chinese buildings, whether used for residences or as places of religion, is a tent. As the convex form of their roofs shows, they are copies of those made of more pliant materials. Wood is the material generally employed, and that most in use is the nan-mon, which is very hard, and is said to last as long as a thousand years, but stone, marble, bricks, bamboo, and tiles are sometimes used. It is strange that prejudice should exist to such a degree that we find no improvement whatever, either in the constructive or decorative portions of their buildings, and it is almost looked upon as a breach of the laws to depart in any way from their supposed perfection and antiquity. One reason advanced as a hindrance to any innovation in the one style of Architecture is that everyone is subject to the restrictions of public functionaries (who are more or less a type of district surveyor); under their supervision every one is obliged to build according to his rank, and for every house a certain size, as well as details, are fixed. According to these prohibitions the level of the ground floor, the length of the rontage of the building, and the height of the roofs, are in a proportionate scale, from the Emperor to the citizen. The slightness of the construction limits the houses to one story only, and the Palaces resemble a number of tents united. The highest Pagoda is nothing but a succession of tents piled on one another, instead of side by side. Thus the largest towns and the smallest villages remind one of permanent encampments. The most remarkable of the substantial works of the Chinese are the Bridges; that at Loyau is composed of two hundred piers, built with very large stones, which support enormous granite lintels, or stones placed horizontally, crowned by a balustrade. There are numerous Bridges, which by the Chinese themselves are considered to be works of great magnitude and importance. The Temples are generally small and consist of only one chamber, which is the sanctuary of their idols; on the outside is a Gallery. In some instances the interior is spacious; that at Ho Nang, is 590 feet in length and constructed entirely of wood, covered with painted and varnished porcelain. The Pagodas, peculiar to China, vary from six to ten stories in height, diminishing upwards, and the plan is invariably an octagon. The most celebrated is "The Tower of Porcelain," which is 40 feet in diameter and 200 feet high, situate at Nang-King, in the centre is a staircase connecting each stage, which is lighted by windows on four sides; the whole is cased with porcelain. At the entrances of streets, and before many of the principal buildings, are to be seen commemorative buildings and triumphal arches, the better class of which consist of a central and two side openings, the lower part being generally of stone without any mouldings, and the upper part of wood supported on horizontal lintels. Of the great wall much has been written which has perhaps caused a much higher opinion to be formed of the monuments of the Chinese than a careful survey justifies. It extends for 1,500 miles and consists of an earthen mound faced by walls of brick and masonry: its total height is 20 ft. The top forms a platform 15 ft. broad, increasing to 25 ft. at the base of the wall. At intervals of about 200 yards are Towers of 40 ft. square, which diminish to 30 ft. at the top. Commencing to the east of Pekin and extending along the frontiers of the provinces, it was built as a protection against the Tartars, and employed millions of workmen for ten years in its erection. It has now stood nearly sixteen hundred years. From the Architecture as well as the ornamental works, the impression is conveyed to us that, generally speaking, the mechanical skill and imitation are the only faculties that are possessed by the Chinese, as their Arts seem confined to bad copies of the works of Nature, without any feeling of composition or invention.



THE A.A. TOUR: ETCHINGHAM CHURCH: FROM A SKETCH BY JOHN BEGG.

THE contract of Messrs. Rudd and Son, of Grantham, has been accepted at the sum of £1,500 for the requisite alterations to the Grantham old Workhouse to adapt it for a temporary Asylum.

ELECTRIC tramways have been inaugurated in Cairo. The rails and the building works have been furnished by the Compagnie Economique, of Belgium, while the machinery has been supplied by a German company. The length of the rails is 20 miles.

WE are informed that Messrs. Lysaght & Co., iron manufacturers, Wolverhampton and Bristol, have completed arrangements for establishing large works at Newport, Monmouthshire, by leasing 70 acres of land there, and it is expected that the works will be completed in five years' time.

DURING the demolition of a building in Burnett's Close, High Street, Edinburgh, part of a wall, about half a ton in weight, suddenly gave way, and instead of falling towards the outside was precipitated into the interior of the building. The weight of the material caused part of the flooring to collapse, with the result that two of the men—James White and James Finnigan—were thrown down a distance of about thirty or forty feet and severely cut and bruised.

ONE of the historic seats in Leicestershire, the Old Hall at Queniborough, about six miles from Leicester, is announced for sale. It was this quaint old mansion, rich in historic associations, which Prince Rupert made his headquarters in 1642, shortly before the siege of Leicester, and when he was at the head of the whole body of the King's cavalry. The Hall is said to be in much the same condition to-day as it was during the sojourn of the Prince.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
August 19th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

A CURIOUS discovery has been made by the workmen engaged upon the restoration of Peterborough Cathedral. Under the southern leg of the parvise or Library, within the west front of the Cathedral, a number of blocks of moulded marble have been found, which, on being put together, make a portion of a huge basin between 20 ft. and 30 ft. in circumference. It has apparently a series of small basins, or hollows, running round it united to each other, but not extending to the centre. It is expected that further fragments will be found which may cast additional light upon its origin. The fragments were cast into the foundations where they were discovered by the fourteenth century builders, A conjecture has been made that it may be the bottom basin of an ancient fountain from the Cloisters which, having become broken, probably from frost, the fractured materials were put into the foundations where they were found.

THE gift of Babylonian antiquities to the Louvre turns out to be less important than was at first supposed, and the circumstances seem to justify the French Ambassador's moderate request and the Sultan's acquiescence in it. During a long sojourn in Irak-Irabi, M. de Sarzec, a French archæologist, discovered and collected a quantity of tablets or tiles, to the number of some 30,000, bearing inscriptions in cuneiform character. The collection cost much time and money, and it was the French Government which provided M. de Sarzec with the funds necessary for his researches. The relics which he found were all sent to the Imperial Museum, of which Hamid Bey is the curator. Last month M. Heuzey, curator of the Museum of the Louvre, came to Constantinople, and begged M. Cambon to ask the Sultan to give him, for that Museum, 30 of these tablets—that is to say, one in every thousand. The Sultan consented, and sent orders to Hamid Bey to hand over the stones to M. Heuzey; but Hamid Bey, who is an enthusiastic archæologist, strongly opposed the surrender of any part of the Babylonian spoil, and for a full fortnight M. Heuzey was unable to obtain delivery of a single tablet. The orders were repeated, but Hamid Bey declared he would never be an accomplice in the spoliation of the Museum of which he had been made the guardian. At length, after receiving reiterated and imperative commands from his Majesty, Hamid Bey placed eight tablets in the hands of M. Heuzey, declaring that if more were required of him he would decline to obey, and would send in his resignation.

MR. F. J. WILLIAMSON has for many years executed commissions in sculpture for the Queen. Born in 1833 in the heart of London (Camden Town), he attended, as a boy, a private School at Hampstead. In a monumental mason's yard in the Euston Road he saw a figure in stone representing "Faith." This caught his youthful attention and fascinated him. He sketched the figure over and over again until he had a fair representation of it, and from thenceforward his aspirations tended Art-wards, and more especially to sculpture. After a time he was brought under the notice of the late John Bell, the sculptor of the Guards' Memorial in Waterloo Place. When he left School, Mr. Bell gave him permission to work in his Studio, but soon after advised him to attend the Modelling Class at Somerset House—at that time the home of the Royal Academy—of which John Bell was the instructor. For several years subsequently Mr. Williamson was in the Studio of Mr. J. Foley, R.A. He was introduced at Claremont by H.R.H. Princess Louise, and was commanded to prepare designs for some memorial sculpture to the Princess Charlotte to be erected in the Mausoleum at Claremont. These were so successful that the completed works were placed in Claremont House instead of the Mausoleum. Since then not a single year has passed without a Royal commission being placed in his hands. The Prince and Princess of Wales are the only two members of the family who have not sat for him. The Queen has specially honoured him in this respect, for rarely has she given other artists more than two sittings for one portrait, while Mr. Williamson has had as many as he deemed necessary. His principal representation of Her Majesty is that which stands in the Examination Hall of the Royal College of Physicians, on the Victoria Embankment, which was proclaimed by the Prince of Wales, when he unveiled it, as "the finest portrait of the Queen ever produced." The bust of Lord Tennyson, which appeared in the Royal Academy in 1894, was executed after the death of the Laureate, and was a special commission from the Queen. A replica was afterwards done for the Corporation of London.

DURING the restoration of the Church at Llanblethian, a Crypt has been discovered under the South Transept, about 17 ft. in length, by about 15 ft. in width. It is approached by a flight of nine steps leading down from the Transept floor. At the bottom of the steps are remains of the iron hooks on which a door once hung. The chamber is lighted by three small openings, which were covered up with earth on the outside, and it is arched with stone from east to west, giving a height of seven feet to the crown of the arch. The whole of this chamber was filled with human bodies, about 250 in number, together with portions of stone coffin lids of thirteenth century character. The bodies have been carefully deposited in one large grave in the churchyard. The Transept, as it was supposed to be, over this Crypt has now proved to be a Side Chapel, for, on the plastering being removed and the old seats cleared away, the outline of an Altar, with a fourteenth century window over, has been brought to light in the east wall, as well as an arched Sepulchral recessed Tomb and a Piscina in the south wall. One side of the Piscina is constructed of a child's stone coffin lid, with an incised cross cut on the top, of thirteenth century character. Mr. C. B. Fowler, of Cardiff, the Architect entrusted with the restoration, knows of no Church in the county where there is a Crypt of this description. The Church, which stands in a commanding position, was at one time of much importance, and no doubt was surrounded by a large village.

NEARLY every ancient Church had its Charnel-house. It was used for depositing the stray bones of the dead which the sexton might happen to throw up in the course of digging fresh graves in the churchyard. It appears that the Charnel-houses and Crypts underneath Churches were among early Christians intended as reminders of the Catacombs—from Cata (downwards), and Kumbe, like the Welsh Cwm, meaning hollow—in which they formerly, in days of persecution, held Divine Services at Rome, in Gaul, &c. One authority states:—"The Charnel-house was generally vaulted in the roof, and was often a building complete in itself, having a Chapel or Chantry, attached to it. In such cases the Charnel-vault was commonly a Crypt under the Chapel, and even in Churches it was not uncommon for the Vault or Crypt to be employed as a Charnel-house." It appears that after the Reformation the Charnel-houses ceased to be treated with the deep reverence of Roman Catholic times. Many of the Reformers, in their excess of zeal, desecrated almost all things which, as symbols, had been associated with piety. The Crypts and Charnel-houses became to the living pits of horror, into which human bones were cast irreverently.

Two very interesting objects recently obtained have just been placed on exhibition in the Egyptian Galleries of the British Museum. The more important of the two is a group of two figures in limestone, representing a High Court official seated on a throne with his wife or sister. The head of both man and woman is ornamented with the usual Egyptian wig, painted a deep black, with eyes and eyebrows of the same colour. The body of the man is painted red and that of the woman yellow, in accordance with the usual Egyptian custom. There are a few incised lines of hieroglyphics giving the names and titles of the two parties, but they are so mutilated as to be almost unreadable. Date about 2333 B.C. The other object is a very large scarab in green jasper, of very elegant workmanship. The underneath part of the beetle is covered with a thin gold plate inscribed with Chap. XXX. of the Book of the Dead. This chapter was a favourite one with the makers of large scarabæi, and is an address to the heart of the deceased, which was weighed in the balance on the day of judgment.

FOR about two years M. Mercié's Memorial Portrait Statue in marble of Meissonier has remained in the garden of the Louvre, surrounded by a wooden hoarding, its base embowered in weeds that are bedded in chips and remnants of stone. At last this fine likeness of the great painter has been cleared of its encumbrances and surrounded with a parterre of flowers. It faces the monument of Raffet.

A HANDSOME Chalice has been given to St. Andrew's Church, Paignton, in memory of Dr. Goodfellow and his wife. It is hexagonal in form standing eight inches high, and is of silver gilt after the Corpus Christi pattern. On the front panel is a raised crucifix of solid gold, with the passion flower and lily set on either side with a sapphire and diamond, and nimbus set with small diamonds. Above the figure is a raised star, in the centre of which is a very fine Brazilian diamond, weighing upwards of 2 carats. On the opposite panel is the Agnus Dei, with nimbus set with small diamonds, and enclosed in a frame of rich tracery. The four intermediate panels are jewelled with amethysts, worked into handsome crosses, with a fleur-de-lis springing from each arm. The knop is pierced and enriched with amethysts.

AT Carlisle the new Girls' Board School in Brook Street was recently opened by the Mayor, Mr. Crowder. In addition to the girls' department there has also been added to the existing Schools a Cookery School with covered playground below, and the infants' department has been enlarged by the addition of a new Class Room and Cloak Room, affording accommodation for 78 more infants. The cost of these additions has been £5,217. The new department has been erected at the Brook Street end of the site purchased a few years ago, and comprises a large Schoolroom divisible into three Class Rooms for 60 children each, flanked on the Edward Street site by two and on the Howe Street site by one Class Room, access to the whole being gained through vestibules, one of which communicates both with the street and playground, and the other with the playground only, a spacious Cloak Room being provided contiguous to each. All the three Class Rooms are capable of seating 60 girls. A new arrangement of screens designed by the Architect and not hitherto adopted will also allow the main portion of the building to be converted in a few seconds into one large Hall for special requirements, educational or otherwise. The School has been built to correspond in appearance with the Boys' and Infants' Schools erected some four or five years ago; and altogether they form a very interesting block from an Architectural point of view, as well as being the embodiment of convenience. The Cloak Rooms, Lavatories, Teachers' Room, &c., are disposed on the playground side of the School-room, so as to have the most commanding elevation next the street. The angular form of the site renders the shape of the two Lobbies irregular, but does not otherwise appreciably affect the plan, which altogether occupies an area of

ver 6,000 superficial feet. Special attention has been given to the arrangements for ventilation and heating, and all the most modern sanitary appliances have been adopted. Mr. T. Taylor Scott has prepared the designs for the whole of the Schools, and the work has been executed under his superintendence by the following contractors:—Builders, Messrs. W. and H. Davidson; joiner, Mr. W. Latimer; slater, Mr. J. Hewitson; plumbers, painters, and glaziers, Messrs. R. M. Hill and Son; plasterers, &c., Messrs. R. M. Ormerod and Son. The furniture, &c., has been supplied by Messrs. Martin and Armstrong, and the heating and ventilating appliances by Messrs. E. H. Shorland and Brother, of Manchester.

THE final revision of the schedule of rents for the Workmen's Dwellings erected by the Plymouth Corporation at Prince Rock has been effected by the Council. As originally proposed the rents were on a somewhat higher scale, the wish being to make the property self-supporting. As now fixed the Corporation will stand to lose £223 per annum when all the dwellings are in occupation. As a matter of theory, the sound thing in Municipal schemes of this kind is to move on commercial lines. To make the buildings self-supporting is the correct ideal. To depart from it is to introduce the element of charity. One of the results of offering houses at less than value may be to attract such a rush of would-be tenants that unless some principle of selection is laid down there will be a risk of getting them filled by people who ought to pay the market price for the accommodation. It must not be forgotten, however, that the scheme is an experimental one; and in all experiments mistakes are apt to be made. The mistake in this case seems to be that a little too much money has been spent on the buildings. If anything, the houses are too substantially built. We should like to have seen small gardens attached, front or back, if not both. Had this been done the Corporation would have set a wholesome example to the speculative builders, who in the east of Plymouth have covered acres of what was open country with a howling waste of masonry, hardly giving room for a bit of green to vary the dreary monotony of stucco, slate, and macadam. As far as the Dwellings are concerned, they are solidly built; first-class material and the best workmanship have been put into them; and, with the single exception that even the higher-priced houses have no entrance passages, they are well and conveniently planned. The committee virtually confess that the buildings are a little too costly, because it is intended that those which remain to be erected on the site shall be put up more economically, so that the moderate rents now decided upon will pay the interest on the outlay. Some of the flats are remarkably cheap. Three rooms on upper floors may be had for three shillings a week.

WITH reference to the new Technical School proposed to be erected on land adjoining the existing public buildings at Bootle, the Borough Engineer and the Secretary to the Technical School recently reported to the Free Library and Museum Committee that the accommodation required would not be obtained for the sum of £15,000 voted by the Council. The Committee thereupon wrote to the Science and Art Department asking their advice and assistance in the matter. It was stated by Alderman Johnson, at a meeting of the Town Council on the 12th inst. that the Committee was most anxious not to exceed the amount which the Council had voted for the new Technical School, and were now making enquiries as to the cost of construction of similar Schools in other towns. On the broader question, as to how they were going to maintain the School when erected, he thought he was right in saying that it would be necessary for the Council to withdraw the £400 they now placed to the credit of the Library Committee for Museum and other purposes, and devote it to the Technical School. It was anticipated that with a good building and proper appliances the number of scholars would largely increase, and that with the amount they received from the excise duties, together with fees and grants from the Science and Art Department, they would be able to pay their way.

FROM Paris comes the news that the Woods and Forests Department is going to sell the ruins of the feudal stronghold of Montlhéry. This was one of the most important keeps in the Middle Ages. It commanded the road from Orleans to Paris, and was, and is still, majestic, both in Architectural character and situation. Montlhéry stands on the edge of the sad-looking but rich tableland of the Beauce, and on one side rises from a steep declivity. Beyond the slope is another plain, through which the Seine meanders. Corbeil and Etampes were practically at the mercy of Montlhéry. Hugues Capet, the Black Prince, Salisbury, Bedford and Louis XI. are associated in French history with this ancient stronghold. Boileau devoted a descriptive verse to it. The State bought Montlhéry in April, 1842, when Gothic Architecture was the rage. It spent about £200 in urgent repairs, on condition that the town at the foot of the Castle was to pay a Caretaker. The townspeople have since laid out a good deal of money, and are ready to take over the ruin and the ground it stands in should the Woods and Forests wish to be done with them. The fee for entrance to the Tower and park is one penny.

IT is said that the Duke of Devonshire is about to make some alterations at Devonshire House, Piccadilly, that will include the removal of the long wall which has hitherto screened his House from the road. Times are altogether changed from 1735, when Devonshire House was built by Kent. This wall with its two massive double gates, stretching from Berkeley to Stratton Streets, has always been a feature of Piccadilly; and although by no means a thing of beauty, it may be permissible to regret its removal and the consequent disappearance of the old-World air that it preserved to this very much modernised thoroughfare. One assumes that a light iron railing will take the place of the blank wall, and that the coach gates will remain, with the four beautiful bronze knockers, fashioned to represent Medusa's heads, that bespeak in some sort the Art treasures within.

THE Report of the Department of Science and Art of the Committee of Council on Education has just been issued in the form of a Blue-book containing, with the appendices, some 450 pages. In the Science Division it is pointed out that in the ten years from 1886 to 1895 the number of Schools has increased from 1,682 to 2,673, of Classes from 5,862 to 9,545, and of Students from 94,838 to 193,404. It is to be noticed that this increase has not been quite continuous, for the numbers for 1893 are higher than those of 1895. In the Art Division we find that 19,898 Elementary Day Schools with 2,192,253 Scholars were taught Drawing and examined. This is an increase of 251 Schools and 68,578 Scholars on the previous year. The grants for Drawing to Elementary Day Schools amounted to £164,494. In 1895 106,051 works executed in the Schools during the session by 23,593 Students were submitted for examination at South Kensington. There were 215 competitors for the 20 Local Scholarships and the 10 Royal Exhibitions. Three of the Local Scholarships and all the Exhibitions are held at the National Art Training School. A separate section deals with other Museums in connection with the Department supported by the State. The section devoted to Technical Education shows that the number of subjects sanctioned since the Acts were passed is 130. The expenditure of the Department in the financial year amounted to £745,470, apportioned as follows:—Expenses of administration, £47,402; direct payments, prizes, &c., to encourage instruction in Science, £156,775, and in Art, £71,939; services common to both divisions, £84,086; Institutions supported or aided by the State through the Department, £80,427; South Kensington and Bethnal Green Museums, £87,586; payments for instruction in Public Elementary Schools and Training Colleges in Drawing, £234,745; grants in aid of local Museums, £494, and in aid of Technical Instruction, £2,016.

Last month's excavations at Thera (Santorin) have brought to light, besides the agora, the remains of two public buildings—viz., the Gymnasium and a Stoa Basiliké. The number of the inscriptions has been increased to more than one hundred. Many of them belong to the Archaic period, and furnish fresh contributions to the history of the earlier Greek alphabet. Several new pieces of sculpture have also been found, but generally not well preserved. Amongst the detached fragments a peculiar importance is attributed to three youths' heads of perfect workmanship. All hope of results from the excavations of this season at Cuma, in Italy, has vanished. That part of the necropolis to which Mr. Stevens's work had been directed was evidently plundered, probably by people of the third to the first century B.C., who in order to bury their dead at a greater depth ruined or destroyed the old Cumæum Tombs.

AT a meeting of the Belfast Corporation Sir William M'Cammond said that 4 per cent. would be fair remuneration for the Architect in competition for the erection of the buildings at Purdysburn, and moved that that percentage be allowed. Mr. Lawther said that after a fair consideration of the circumstances of the case it was decided that the fee should be 3 per cent., and some of the governors thought that 2½ per cent. would be sufficient. Taking into consideration that they were limited to gentlemen belonging to Belfast, it was the feeling of the Board that 3 per cent. would be ample remuneration. He held that as Belfast depended for trade with Great Britain and the World generally that it would be unwise and a bad policy to confine the competition to Belfast. If the fee were raised from 3 to 4 per cent., and the competition confined to the city they would be going a step backwards. It would probably prevent Belfast professional men from getting situations in England and elsewhere. If the conditions of the competition were altered a resolution previously adopted would have to be rescinded and the competition made public. Some Belfast Architects had distinguished themselves by some of the finest buildings in England, and he thought the professional men themselves would rather have a fair competition. It might militate seriously against local rising Architects if it were said in England that no Belfast Architect could compete simply because the Board of Governors of the Asylum had prevented outside talent from competing. The motion was carried.

A LETTER, signed by the members within the district supplied by the East London Water Company, has been sent to the First Lord of the Treasury in regard to the failure of the supply of water by that Company, in which it was stated that the only manner in which its recurrence can be prevented and possible disaster avoided is that the whole supply of water in the metropolis should be in the hands of one authority, and that of a public representative character, so that when scarcity arises in one district it may be met from the supplies of other districts. In his reply Mr. Balfour said that the Government was deeply sensible of the importance of the question to London generally, and to the East End in particular; and that the next Session ought not to pass without a solution of the question being arrived at.

So far as London is concerned the 1896 Art season may be reckoned to be at an end, and on the whole there is small reason for regret that it is over. It has been by no means a satisfactory one, as sales have not been particularly numerous, and Exhibitions have been by no means of high quality. The Academy show was, says the *Globe*, one of the dullest which has been seen for many years in Burlington House. Very few pictures of conspicuous merit were included in it, and faults in hanging made it rather a dreary display. Possibly the provincial Galleries may in the autumn do something to atone for the metropolitan deficiencies; but at present the revival in modern Art, for which everyone has been hoping for some time past, seems as far off as ever. Whether the blame for the present stagnation should be laid upon the artists or upon the public is hard to say, for there are probably faults on both sides; but certainly popular opinion is by no means as well inclined towards modern Art as it was some ten years ago. The only thing that is evident is that there is no lack of buyers for Art work, but they prefer to spend their money upon the productions of deceased artists, and let living men severely alone.

IN New York the new Synagogue will be enriched with two relics of great historical interest. These are two stones, which will be richly mounted on mahogany tables, with a silver-chased plate recounting their story, which to a great extent is that of the first Jewish settlers in New York to gain recognition as a religious body. The stones are bound up with many interesting facts and incidents of that period. In appearance they are dark flint stone, cracked and worn in some places, but carefully held together by a 2 in. iron band which encircles them, and reposing on ancient black mahogany carved tables. They are 3½ ft. in diameter and 10 in. thick, and are said to be the original foundation stones of the first Jewish Synagogue established in New York, in 1729.

THE Dublin National Gallery has just received a very important addition. This is a small picture by Andrea Mantegna, one of the greatest and most original of the Italian painters of the fifteenth century. It is painted *en camaieu, i.e.*, in monochrome on a ground of a different colour. The subject is Judith disposing of the head of Holofernes after his slaughter. The conception being that of a feigned bas-relief, the tent of the Assyrian general is represented merely by its frontal, against a background of red marble. Before the tent the Jewish widow stands, with a short, square-pointed falchion in her right hand, while with the other she deposits the severed head in the sack held open by her "maid," who is apparently an ancient negress. The whole design is of infinite beauty, the drapery, especially, showing Mantegna quite at his best. In execution, too, the picture is most careful and delicate. There is a drawing for it in the Louvre. The subject seems to be one of a series, of which another is in the London National Gallery. This latter represents Delilah shearing the locks of Samson. Mantegna's easel pictures are very scarce. The National Gallery possesses five, a greater number than any other collection, but one of these may possibly be the work of a pupil. The Berlin Museum has two, or possibly three, the Louvre four, the Uffizi, Florence, three; elsewhere they are the greatest of rarities. The series of decorative panels known as the Triumph of Julius Cæsar, which are now the chief treasures of Hampton Court Palace, can hardly be called easel pictures. They were painted for the Palazzo San Sebastiano, at Mantua, and are now in terribly bad condition.

PROFESSOR HERKOMER recently paid a visit to Hwfa Mon, the Archdruid of Wales, and brought for the Archdruid's inspection the articles of the costume which he has designed as being the most becoming and in accordance with the traditional dress of the archdruid. The robe is a graceful and flowing one of pure white crepe, and covers the figure. The sandals are made of white kid of soft texture, and are much longer in the leg than the ordinary boot. The wreath of oak leaves for the headpiece is an instance of Professor Herkomer's work in copper. The leaves and oak are most naturally worked in old copper, which quite imitates the shade of decayed oak leaves. The gold breastplate is the most striking piece of the paraphernalia. It is of pure light gold, shaped in a semicircle with two large studs at each end. Its weight is not much, but it is of solid metal and cost about £70. The material was obtained from the Dublin Museum.

THE American School at Athens has made an important contribution to archæology through the excavations undertaken by it at Corinth, which has hitherto remained topographically unexplored. The finding of the Theatre is an important achievement, as it is the point of departure whence the description of Pausanius may be followed. Some fifty archaic terra-cottas and a figure of a female divinity have been brought to light, and it is believed that some remains which have been last discovered will prove to be those of a temple.

SIMULTANEOUSLY with the improvements at Poets' Corner, a clearance has been effected at the north-east end of Westminster Abbey. The restoration of this part of the building is at length complete, and the space, so long rendered unsightly as a building-yard, has been cleared of sheds and scaffolding, and sown with grass seed. An uninterrupted view of Henry VII.'s Chapel can now, probably for the first time in its history, be obtained from both sides, north and south. An ancient thirteenth century doorway has just been discovered embedded in modern masonry in the north-east angle of the north Transept. The west front, which is in a very decayed condition, has now been taken in hand. The masonry is barely two hundred years old, but it is fretted and corroded in all directions. Hawksmoor's queer pseudo-Gothic Towers are so insecure that the Abbey bells can with safety ring but a wheezy peal on a few Royal anniversaries. Probably some drastic measures will need to be taken with this part of the building before long.

IT cannot be doubted that the exaltation of old masters, in season and out of season, has had something to do with the closing of the modern picture market. The moneyed man has been mis-educated into regarding pictures as being like wine, all the better for many years' keeping, and he has not courage enough to lay down new stuff to mature. If only half the energy were shown in pushing the best work of to-day that has been wasted upon popularising fourth-rate old pictures, better times for contemporary workers would dawn quickly enough. There is, in this connection, a crumb of comfort in the news that the annual old master show at the Academy is in the coming winter to be abandoned in favour of a collection of the works of Lord Leighton. This is a distinct step in the right direction, and we may hope that it will prove successful enough to induce the Academy to modify very definitely its policy with regard to its winter exhibitions.

ON the 29th inst. the members of the Iron and Steel Institute leave London for the North of Spain, where their autumn meeting is to be held, under the presidency of Sir David Dale. For many years past Bilbao has annually produced four-and-a-half million tons of iron ore, the bulk of which is owned by Englishmen and exported to this country, so there can be no doubt that the visit will be an instructive one. At the same time it will enable our ironmasters to judge for themselves as to the truth of the disquieting rumours regarding the approaching exhaustion of this leading source of our iron ore supply. Metallurgically, too, there is much to see, for although the production of steel in Spain has as yet only attained to modest proportions, the steel works are of such recent construction that the designers have been able to profit by the latest English and Belgian inventions. A long list of papers of technical interest will be read and discussed.

PROFESSOR GREGOIRE TOCILESCO, of the University of Bucharest, and chief director of the National Museum, has recently visited Western Europe on a mission for the Roumanian Government to the principal scientific and archæological societies. During the present year he has discovered and excavated another monument which is unique in the ancient world. It is a Mausoleum erected by Trajan to commemorate the soldiers who fell in a battle near the spot, in which the Emperor himself took part. The monument is quadrangular on a platform of five or six steps, and bears plaques covered with inscriptions recording the names of the Roman citizens, the legionaries, and even the peregrines who fell in a battle near the spot. These inscriptions are full of interest, and contain details of the *domus* or of the *domicile* of the Roman soldiers, and of the countries to which the strangers belonged. M. Tocilesco gives a most interesting description of the principal inscriptions, and of the light which they throw on the history of the buried city. He suggests that the great trophy was erected by Trajan at Adamklissi, although the war mainly took place north of the Danube, on account of the Emperor's own presence at the opening battle near that spot, and within the three lines of defence. This battle is indicated in the Trajan column. The Mausoleum appears to have been in the form of a pyros such as seen on the medals of Antoninus Pius and Julia Domna.

REMINISCENCES OF FRENCH PALACES.

BY I. WILLIAMS.

IT is not intended in this article to go deeply into the architectural detail of the buildings, so much having been previously written upon each of the Palaces mentioned that to avoid repetition would be an impossibility—but to give a rough sketch and a few facts of the various objects of interest seen during a series of short visits to the following Palaces:—The Tuileries, the Luxembourg, the Elysée, the Louvre, Versailles, the Trianons, and Fontainebleau. The Tuileries may be considered the principal imperial residence in Paris, and stands upon ground which was once a tile yard. The present edifice was commenced in 1564, and was intended by Philibert Dilorme as the front only. According to his design, there was to have been a centre with colonnades on each side leading to the wings, but the work was stopped before completion. Henry IV. built the large wing towards the Quai, and Louis XIV. the corresponding one on the side of the Rue de Rivoli, also adding the centre and the Porticoes. Louis-Philippe rebuilt and altered considerably that part which is on the right of the centre. Until the time of Napoleon, the Tuileries had been little used as a royal residence as it was exposed on all sides to public thoroughfares. The history of the Tuileries is the history of the Revolution: how the mob on June 18th, 1792, invaded the Palace; how in 1830 it was sacked and the furniture plundered and destroyed; reinstated by Louis-Philippe and broken into again by the mob in the Revolution of 1848, the throne being carried to the Place de la Bastille and burnt, and considerable damage done; afterwards used as a hospital. The façade towards the garden, nearly 1,000 ft. long, was irregular, but picturesque and imposing from its mass. The entrance was under the Pavilion de l'Horloge, or the centre block, and on the right in the north wing were the Chapel, the Theatre, and the Salle du Conseil, which were built on the site of a large hall or theatre. After having been five times captured and sacked by the Paris mob it was reserved for the Insurgents of the Commune, in 1871, to destroy with fire this noble edifice, and the finest specimen of Renaissance Architecture in France. Part of the Pavilion de l'Horloge and the rest of the west front, and the side next the Rue de Rivoli were consumed, but the Pavilion de Flore was only slightly damaged. We next come to

THE LUXEMBOURG PALACE

in the Faubourg St. Germain, on the south side of the Seine, began in 1615, by Marie de Médicis. It was designed by Desbrosses, who is said to have intended to imitate the Palazzo Pitti, at Florence. In this, however, he hopelessly failed, producing a building partly Renaissance and partly Classical, but nevertheless, not unpicturesque. The façade remains nearly as he left it, except that windows have been opened in it. In the beginning of the present century the interior of the Court was altered by Chalgrin, and in the reign of Louis-Philippe, considerable additions were made on the side of the garden, which is very extensive. The Clock Tower, with its allegorical figures, by Pradier, is of the same date. In 1791 it was used as a Prison, and again in 1795 became the Palace of the Directory. After having been utilised as a place of meeting for the Chamber of Peers, under the restoration of Louis-Philippe; for Socialist Meetings in 1848, and other assemblies during the Revolution, it reverted in 1852 into the Palace of the Senate, until the fall of the Second Empire. It was saved from destruction by fire during the Commune by the arrival of the troops at the moment it was being set fire to and is now used as the Prefecture of the Seine. Of the interior there is a handsome Staircase, built by Chalgrin, adorned by statues of the First Empire, which leads to the Guard Room or Salle de Gardes, decorated with Classical statues; the Throne Room, about 180 ft. long, and in excellent proportion, gilded, painted and decorated in gorgeous style; and the Senate Hall, restored in 1859, and semicircular on plan. The Library contains some good modern pictures, the chief of which is the "Elysium of Dante,"

fine work by E. Delacroix. In the apartments Marie de Médicis, which are little altered, e panels, attributed to Poussin and P. de hampaigne, and furniture, have in point of quisite work and lavish gilding rarely been ceeded. The Doric Chapel, completed in 1844, decorated with modern pictures by Gigoux. the south-east corner of the Great Court of e Palace is the Gallery, which dates from 18, and occupies the first floor of the east ing, and contains the best works of living rench painters. The Great Gallery, as it is lled, is well worth a visit. The fresco on the ault is by Callet and the signs of the Zodiac, either side, by Jordaens, and are of the time Marie de Médicis. This room contains the ick of the collection, including works by outure, Corot, Schnetz, Robert Fleury, Meisonier, Rosa Bonheur and Muller. A grand ile of buildings, enclosing a square court,

THE LOUVRE PALACE,

on the right bank of the Seine, between it and he Rue de Rivoli on the west of the Tuileries. The plan of the Castle, which it was originally, said to have been marked out on the pavement in 1868 after traces of the foundation had been laid bare in excavations made by the Municipality. The oldest part of the existing building is clearly the south end of the west ide, designed by Pierre Lescot, who pulled own the old fortress to substitute a Palace in he then so-called Italian style. Henri II. and Catherine de Médicis in turn added to it. Under Louis XIV., at the suggestion of Colbert, Bernini came from Italy to complete the Palace, but his designs were superseded by those of Claude Perrault, a French Architect, who commenced the colonnade of twin Corinthian columns flanking the gateway forming the east ront, "a façade which has not been surpassed n modern times either for elegance or propriety." The river front, also by Perrault, has forty Corinthian half columns. The north ront was begun by Lemercier some years earlier, and it may be that want of money caused the Louvre to remain unfinished. A arge part of it even stood unroofed down to the ime of Napoleon I., who repaired what had fallen into decay and finished the general plan. The embellishments made under the Restoration and by Louis-Philippe have been entirely left n the shade by the work of Napoleon III. The fronts towards the Grand Court—"already the most beautiful of any modern Palace in Europe"—were repaired and restored; the houses which hemmed in the Palace, on the side where the Rue de Rivoli now runs, were cleared away, and the edifice completed by raising the vast pile of building connecting the Louvre with the Tuileries. The constructions were chiefly from the designs of the late M. Visconti. An enormous collection of works of Art occupies nearly the entire range of buildings forming the Louvre Palace, and as a whole is said to be the finest in Europe. On the ground floor are the Sculptures; on the first floor Paintings and Original Drawings; and on the upper floor, Naval and other collections. One should not fail to visit the Salon Carré, restored and decorated by Duban, in which the paintings of the Italian, Flemish, Spanish, and French schools are placed. Here may be seen masterpieces by Correggio, Van Dyk, Holbein, Raphael, Rubens, Titian, Paul Veronese, Giorgione, Murillo, and others too numerous to mention. The Palais de l'Elysée was built in 1718, and is in the Rue du Faubourg St. Honoré. It was enlarged and inhabited by Madame de Pompadour, afterwards the residence of the Duchess de Bourbon and Murat, and Napoleon I. who made considerable improvements. The Emperor Napoleon III., on his election as President, occupied it at one period, but afterwards went to the Tuileries. Architecturally it is not of much note, as compared with either of those mentioned previously. Thirteen miles by rail from Paris is

VERSAILLES,

scarcely known until Louis XIII. built a hunting mansion there. A great part of this building still remains, and forms the central portion of the Palace. History tells us that Louis XIV., finding St. Germain not large enough, determined to build a vast Palace on this unpromising spot, which at that time was a sandy forest, selecting it, according to St. Simon, to show what could be done by Art against Nature. The Palace was begun by Levau, in 1661, and continued under the younger Mansard. The supply of water being insufficient, machinery was erected at Marly for raising it from the Seine, and an aqueduct built to bring a further supply from the Eure, near Pontgoin, but after large sums had been spent, it was abandoned. There is no authentic record of the enormous sums lavished on this building. Louis XV. added the Theatre and a building parallel to the Chapel. In October, 1789, the furniture was burnt or stolen, and the building partially deserted. Napoleon I. and the Restoration scarcely did more than keep it in repair, and it remained unoccupied until Louis-Philippe undertook the task of restoring the Palace and made it a museum for works of Art. Upon the repairs and waterworks and new buildings alone £600,000 was spent at this period. In 1871 the King of Prussia made the Palace his headquarters, and part was used as a hospital. The Palace has a vast open space in front, with two extensive buildings at the junction of three avenues which diverge from it. These were erected by J. H. Mansard, and stabled 1,000 horses. This open space was called the Place d'Armes, and its grille led into a court flanked with Pavilions on right and left. Behind these Pavilions are piles of Offices. In the Royal Court, which is at the back of the statue of Louis XIV., is the old Palace of Louis XIII. It is of red brick, with stone pilasters and marble busts on brackets against the walls, which were added by J. H. Mansard, when he was directed to preserve it during the new construction. These three sides of the Palace surround the Marble Court, so called from its marble pavement, which must have been very beautiful. The interior consists of a centre and two wings, the centre being made up of the old Palace and its additions towards the gardens. The Chapel is 105 ft. long and 79 ft. high, and is a good specimen of the Decorative Architecture of the time. Of the numerous rooms containing sculpture, paintings, and decoration panels by all the well-known artists of the day, we may mention the Grand Gallery of Louis XIV., as it is called, said to be one of the most magnificent rooms in the World, being 239 ft. long, 33 ft. wide, and 23 ft. high, occupying the centre of the Palace, with seventeen windows overlooking the gardens. On the walls are paintings by Lebrun and Mignard. In the south wing was erected a Hall of Meeting, which is semi-circular, in the form of a Greek Theatre, surrounded by Ionic columns and lighted from the roof. The garden front is wholly Mansard's design, and, from its monotony, looks like a street of houses more than anything else. It is 1,362 ft. long, and has 135 windows in each floor. Along the immediate front is a wide terrace adorned with statues, and a broad flight of steps leads down to the garden. After Louis had built the vast Palace of Versailles he decided to erect a smaller Palace, and raised, in 1688, what is now called Le Grand Trianon, which resembles an Italian Palace, the rooms all being on one floor, without basement or attic. Louis-Philippe carried out some repairs at a later period, and built the Chapel. The Petit Trianon was erected in 1766 by Louis XV., and was given to Marie Antoinette by Louis XVI. It has nothing of special Architectural value about it. From the earliest times

FONTAINEBLEAU

was a hunting seat of the Kings of France, being 36 miles from Paris and two miles east of the town of the same name, but it was under Francois I. that the present Palace rose. Large additions were made by Henri IV. The Palace is of vast extent, the interior being very irregular and unimposing. There are five principal Courts. The right wing of the Court of the White Horse was rebuilt by Louis XV., the centre being commenced by Francois I. and carried out by Henri IV., and Louis XIII.; repaired and altered by Louis Philippe. The total dimensions are 151 ft. long by 370 ft. wide. There were once buildings on the fourth side, pulled down in 1810. The Fountain Court is large, with buildings on three sides, erected originally by Serlio, under Francois I., but so often and so extensively altered that it is now impossible to give the exact dates of the buildings. The Oval Court occupies the site of the original Castle of which one turret only remains. The present Court dates from Francois I. and Henri II., whose ciphers may still be seen. The Arcades are also of their time, the Gallery, however, is of Henri IV. The principal entrance to the Palace contains a horseshoe Staircase of Louis XIII.'s date, by means of which access is obtained to the Chapel of St. Trinity, built 1529, decorated under Henri IV. and redecorated under Louis-Philippe. One arch of the old Chapel of St. Louis still remains. The Gallery of Francois I. is 200 ft. long and 19 ft. wide, and was erected in 1530. It is a beautiful specimen of the Renaissance, partly restored by Louis-Philippe, who, however, committed the error of raising the ceiling. The Fresco Gallery, built by Louis-Philippe, is somewhat grotesquely ornamented with painted panels and a series of Sevres porcelain plates. The Throne Room was begun by Charles IX., enlarged by Louis XIV., and altered by Napoleon I. Adjoining rooms were begun by Charles IX., and lead to the Gallery of Diana, nearly 300 feet long, built and painted under Henri IV., but no traces of the original work remain, the whole having been remodelled by Napoleon and Louis XVIII. in the heavy style of their time. The gem of the Palace is without doubt the Gallery of Henri II., built from the designs of Serlio and decorated by Henri II., 100 feet long, 23 feet wide, and one of the most beautiful works of the Renaissance. The ceiling is of walnut picked out with gold and richly panelled; the walls are covered with oak carving, on which are designs in gold, and the panels are painted by Abbate from designs of Primaticcio. The Chapel of St. Saturnin, built in 1534, where the old Chapel of Louis VII. stood, has been remodelled repeatedly. The stained glass windows are fine specimens of the Sèvres work, and are from designs by the Princess Mary of Orleans. Adjoining the Chapel is an immense Dining Hall. The Porte Dorée is a fine specimen of designing by Primaticcio, the outside being gorgeously gilt and carved. The rest of the Palace contains nothing of particular interest. The Gardens were laid out by Le Nôtre. Of the Palaces in other parts of France much could be written did space permit; but these will best form the subject of another article.

AT the re-opening of St. Mary's, Warwick, it was stated that the restoration had taken twelve years to complete.

THE Chester Town Council proposes to raise £100,000 for purchasing property, erecting new buildings, for the electric light installation, new Baths and an Infectious Diseases Hospital.

AT Blairhill, Coatbridge, the new School, erected by the Old Monkland School Board, was recently opened. The School is to accommodate 130 children, and has been erected at a cost of £7,000, or about £10 per scholar.

AT the recent inspection of the Waterworks at Irvine, it was decided to add three filters to those already in use, thus giving an increase in filtering power of nearly 50 per cent. Mr. Wilson, of Messrs. Leslie and Reed, Edinburgh, was instructed to prepare plans for the addition.

A STATUE of Dean Colet, the founder of St. Paul's School, is to be placed in front of that building at West Kensington. It will be executed in bronze by Mr. Hamo Thornycroft, to whom the commission has been given by Mr. Howley Palmer, one of the governors of the School.

A NEW Borough Theatre, erected at West Ham, is to be opened this month. At present the Theatre, which is situated on a prominent site in the High Street, Stratford, next the Stratford Market Railway Station, is in the hands of workmen, but the internal decorations and fittings are rapidly approaching completion. The building has been designed to seat 3,500.

THE erection of a new Mansion House on the Thames Embankment has lately been suggested, but the idea is not at all favourably regarded in the City. The utilitarian argument that the abolition of the ancient Mansion House would facilitate traffic, and that the money obtainable for the site would place a vast sum at the disposal of the Corporation, does not suffice to recommend it to those without whose advocacy the project must continue to be a dream of the up-to-date reformer.

Professional Items.

DUBLIN.—The tender of Messrs. Cotton Bros., Limited, of Portadown, and Clanwilliam place, Dublin, for building a new Lunatic Asylum at Portrane, has been accepted at £167,000, the work to be finished in six years.

NEATH.—New Shops and Business Premises are about to be erected on the site of the old Academy buildings. The contract is let to Messrs. Gustavus Bros., of Swansea, and the Architects are Messrs. Wilson and Moxham, of Swansea.

TRURO.—St. Paul's New Boys' School, erected at a cost of about £2,000, and providing accommodation for 270 boys was recently dedicated by the Bishop of Truro. The Architect was Mr. Douglas, and the contractor Mr. Colliver, of Truro.

HOPE-UNDER-DINMORE.—The newly restored Chancel at Hope-under-Dinmore Parish Church has been re-opened by the Bishop of Hereford. The Chancel, which is of a cruciform design, has been fully restored, entirely at the expense of Mr. J. H. Arkwright. The Architect was Mr. F. R. Kempson, of Hereford.

SILVERDALE.—In connection with Trinity Wesleyan Chapel the Foundation Stones for a new Sunday-school were recently laid. The School will adjoin the existing Chapel, and is estimated to cost £400. Mr. W. Wright, of Lancaster, is the Architect. The facing walls will be of Yorkshire shoddies, with dressed Lancaster stone for the corners and window sills, and local limestone rubble for the nteriors.

CAWTHORNE.—The new Wesleyan Chapel and Schools opened at Cawthorne, erected from the designs of Mr. Robert Dixon, are in the Renaissance style, and have cost about £1,400, and will accommodate about 200 worshippers in the Chapel, and a similar number of children in the School. At the same time, a statuette of the Rev. John Wesley, executed in Portland stone by the Mr. S. Swift, sculptor, a native of Cawthorne, now residing in London, was unveiled.

NEWMARKET.—At a recent meeting of the West Suffolk County Council it was stated that the Local Government had decided to comply with the County Council's application for consent to borrow £5,500 for the provision of a new Police Station at Newmarket, except £225 included for Architect's commission and expenses, which was not considered a proper subject for a loan. A resolution was passed that a contract be sealed with Messrs. Kerridge and Shaw for the erection of a Police Station in the sum of £4,749.

HUDDERSFIELD.—Ramsden Street Chapel, which has been closed for some time for decoration and for the installation of the electric light, was recently re-opened. The first part of the work has been done by Mr. J. T. Spratt, of Springwood Street, and the second part by Mr. J. H. Taylor and Co., electrical engineers, Macaulay Street, Huddersfield. The Chapel now presents an improved appearance, a sum of between £200 to £300 having been spent on the renovation of the Chapel and School.

DUNDEE.—A new Catholic Church is to be erected for the Eastern district, having a double frontage to Arthurstone Terrace and Maitland Street, two new thoroughfares at present in course of construction. Accommodation will be provided for 800 persons, with commodious and convenient Presbytery buildings to the north. The building when completed will, it is estimated, cost about £8,000. The work has been placed in the hands of Mr. T. Martin Cappon, Architect, Reform Street, Dundee.

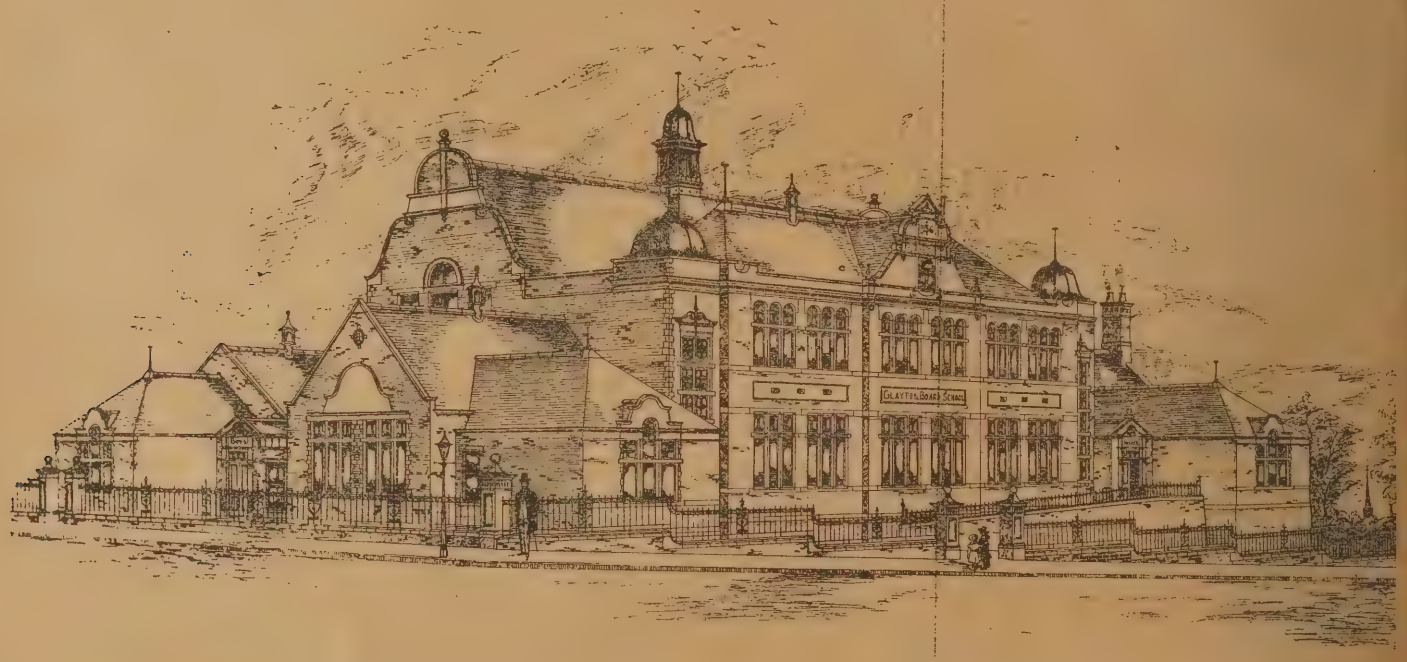
HADFIELD.—Steps are being taken for the enlargement of St. Andrew's Schools, Hadfield, Glossop. The Schools, built 40 years ago, were enlarged in 1878, towards the cost of which Col. Sidebottom, M.P., gave £500. The plans, which have been approved by the Education Department, are for a new Infants' School, to accommodate 138 children, Cloak Room for girls, another for infants, and a Hat Room for boys, with large Class Room over for Sunday School and parochial purposes, new offices, &c. At least £1,000 will be required.

LIVERPOOL.—A special meeting of the donors and subscribers of the Blind School, Hardman Street, was recently held to authorise the committee to use part of the invested funds, if necessary, for the purpose of building a new School. It was resolved that the plans for the erection of the building which had been prepared by Messrs. H. and A. P. Fry, and the cost of which building, when complete, is estimated at about £20,000, be hereby approved, and that the committee be authorised to proceed with the erection of the building in compliance with such plans.

BARROW.—Tottlebank Chapel, which claims the distinction of being the oldest Baptist Chapel in Lancashire, has been overhauled, the rafters renewed, and the roof re-slated, whilst the ceiling above the Gallery has been raised about 3 ft., and the interior has been thoroughly put in order. Throughout the considerable alterations and improvements care was taken that the main Architectural features of the ancient edifice should not be interfered with, and the interestiug building remains in all its main characteristics as in the past. The total cost of the work is estimated at £350.

MORECAMBE.—At a recent meeting of the Morecambe District Council it was resolved to invite tenders for making the Bare Sea Wall and Promenade, both including and excluding the laying of the tram-lines, and subject to the requisite departmental consent to the works being obtained. The Council approved of plans submitted by Mr. F. Edwin Breare, of London, for the erection of a new Hotel on the Calton Gardens Estate (now used as pleasure gardens), at the east end of Morecambe, to be designated the "Grand Hotel." The building is to contain 100 Bedrooms, and the estimated cost is stated to be about £30,000.

SHEFFIELD.—Abbeydale House has been formally opened for Methodist purposes. Abbeydale House, together with a considerable plot of land, was purchased at the very reasonable figure of £2,500. Including the site of the house, the land bought is about an acre and an eighth in extent. The house can be made suitable for all the present requirements of the Society with very little alteration. The mere taking down of a partition dividing the Dining and Drawing Rooms will enable seating accommodation to be found for 300 persons, and there are equally good facilities for holding Class Meetings and conducting Sunday Schoo work.



DESIGN FOR PROPOSED BOARD SCHOOL, CLAYTON: W. R. NUNNS, ARCHITECT, LEEDS.

ABERTILLERY, MON.—On August 10th, the new Schools recently erected in Queen Street were opened. They consist of two separate blocks—the one for boys and girls, and the other for the infants. The Schools are built of blue pennant stone (native), relieved with dressings of Yorkshire stone. The floors are paved with wood blocks, and the Schools are fitted with all modern conveniences. The main room in the Infants' School is large, and divided into two parts by a glass sliding partition. The total accommodation is for 625 children. The contract was carried out by Mr. A. P. Williams, Abertillery, the Architect being Mr. George Rosser, Abercarn.

NEWCASTLLE.—A scheme is on foot for erecting a Winter Garden and Crystal Palace on a site in St. Thomas's Street, facing the Leazes, with side galleries, capable of accommodating upwards of 20,000 persons. In addi-

tion there will be Cloak Rooms, Offices, Refreshment and Smoke Rooms on the same floor. The Orchestra, with Retiring Rooms, is arranged so as to leave the whole of the floor space available for Winter Gardens or Exhibition purposes, or to let off separately for concerts and similar gatherings. Mr. J. W. Taylor, of 31, Westgate Road, is the Architect. The probable cost of the undertaking, including land, is estimated at £50,000.

HARLECH.—Four Memorial Stones of the new Baptist Chapel in course of erection at Harlech were recently laid. The Chapel, which is being erected on the lower side of the main road near the Belle Vue Hotel, will be built of local stone relieved with dressings of Bath stone. The design is of a free Classic treatment. The Chapel will have sitting accommodation for 450 persons, and there will be a Schoolroom underneath. Including the site, the Chapel will cost £1,350 and, it is expected, will be completed in the early spring. The Architect is Mr. J. E. Evans, Barmouth, and the contractors are Messrs. Williams and Adams, of the same place.

BRECHIN.—An arrangement has been come to between the Police Commission and the Parish Council to erect an addition to the present Municipal Buildings, a portion of which will be placed at the disposal of the Parish Council. At a recent meeting of the Police Commission a sketch plan prepared by Mr. M'Millan, Aberdeen, the Architect of the new Municipal Buildings, was laid before the meeting. The plan shows a front elevation to Bank Street, with an Office and Inspector's Room on the ground floor, a three-roomed house to be occupied by one of the burgh constables upstairs, and all the most modern sanitary arrangements. Mr. M'Millan's estimate of the cost of the building was £600. After some discussion, it was resolved to remit the matter to the Committee for consideration.

PLYMOUTH.—After extensive alterations and extensions, necessitating almost complete rebuilding, the Grey Schools, Plymouth, have been formally re-opened. This ancient Foundation School was opened first in 1714, and in 1814 the old building was erected in Hampden Street. After nearly a century's work, the pressure of want of space began to be severely felt, and on his last visit her Majesty's inspector declared that the alterations which were so imperatively necessary must be carried out forthwith. The committee entrusted the drawing of the plans to Messrs. King and Lister, and at a cost of about £1,000 the work now practically completed has been carried out by Messrs. Blackell and Shepherd. A new wing has been added, and the premises made sanitary and well-ventilated, capable of accommodating about 260 children.

PLYMOUTH.—New premises are to be erected in the Military Road for the Millbay Cleaning Works Co., for which they have just accepted the tender of Messrs. Blackhall and Shepherd, King Gardens, Plymouth. The buildings, which have been designed by Mr. H. J. Snell, Architect, Plymouth, will have a frontage of 200 ft., and will run back 220 ft. The very latest electric plant for laundry, dyeing, and cleaning will be laid down by Messrs. New and Mayne, of Westminster, and Messrs. Blackman and Co., of London, will supply the special machinery for drying and ventilating, which include powerful fans that will completely renew the air in which the drying is effected four times every minute. The machinery and electric installation will be of the best kind, and the cost of the whole buildings will be about £14,000.

BEXHILL.—The Memorial Stone of the new Baptist School Chapel, which is in course of erection at the corner of Buckhurst and Clifton Roads, Bexhill, was recently laid. The Chapel which is to be built as a memorial to the late Rev. C. H. Spurgeon, and is being erected by Mr. C. Thomas, of Bexhill, is merely the commencement of a larger scheme, the intention being to erect a larger Chapel on the adjoining plot, which has been purchased for that purpose, and to convert the building now in course of construction into Schools. The present building is to be a Gothic structure with a vestibule in front. It will be 27 feet by 45 feet in dimensions, and will seat a congregation of 250. In addition there will be two Class Rooms —one for girls, the other for boys—with the usual accessories. The building will be constructed entirely of red bricks, with tiled roof.

OLDHAM.—At a special meeting of the Surveyors Committee of the Oldham Corporation, held at the Town Hall for the purpose of appointing a Surveyor for the borough in succession to the late Mr. Andrew Foote, C.E., the following seven selected applicants out of 92 were invited to attend:—William Eckersley, Surveyor for the Chadderton District Council; E. C. Foote, Assistant Surveyor for the Oldham Corporation; Samuel A. Pickering, Borough Surveyor, Colne; W. Wellburn, Borough Surveyor of Middleton; John Witts, Departmental Surveyor of Leeds; J. C. Varley, Contractor, &c., Oldham; and J. H. Mills, Clerk and Surveyor for the Crompton District Council. The final vote lay between Messrs. Eckersley and Pickering. The former received four votes and the latter seven, and on the proposition of Councillor Holt, Mr. Pickering's appointment was put as a substantive resolution and carried unanimously.

MORECAMBE.—The Memorial Stone of the West End Wesleyan Chapel was laid recently by Sir Henry Mitchell. The building will consist of a Nave 30 ft. wide and Aisles 15 ft. wide, with an Arcade on each side having six wood arches. The entrances and staircases to the Galleries will be at each corner of the west end, the Tower at the angle forming a Porch. The Pulpit will be placed at the opposite end, and the Organ and Choir in a Gallery behind. Galleries will also extend along the sides and end. The Schools at the rear of the Chapel are to be divided into an Infant School and Class Rooms, the upper portion being entirely occupied by a large Senior School Room, the staircase to which will also form an additional exit from the Chapel Galleries. The dressings of windows and so forth are to be of Yorkshire stone, and the walls are to be faced outside with parpoints. All the seats and fittings will be of pitch pine. The heating is to be by hot-water pipes, with provision for fresh-air inlets over the coils. Mr. John Edmondson, of Morecambe, is the sole contractor, except for the heating, which will be carried out by Messrs. Seward and Co., of Lancaster.

BRIDGE SOLLARS.—A new Bridge, spanning the river Wye at Bridge Sollars, about six miles from Hereford, has been opened. The Bridge is entirely of iron, resting at either end on stone abutments, and supported in the middle by two pairs of cylindrical columns, the lattice girders and superstructure thus forming three spans. The distance between the abutments is 188 ft., the spans between the cylinders and abutments 61 ft., and the central span 64 ft. The iron columns are 4 ft. 6 in. in diameter, weigh about 15 tons each, are sunk into the bed of the river to the depth of 4 ft. 6 in., and are filled with cement concrete. These are topped with ornamental stone caps, and the whole surmounted by the superstructure in the shape of the roadway and the lattice work sides, the latter being 4 ft. 6 in. deep, weighing in all something like 97 tons. The height of the girders, taking the under side from the bed of the river, is 29 ft., and as the highest known flood was 23 ft. above the bed, there is 6 ft. to spare, thus putting the Bridge well out of the way of the water. The width of the roadway is 15 ft. The joint engineers were Mr. Stephen Williams, County Surveyor for Radnorshire, and Mr. R. L. Bamford, of Hereford. The contractor being Mr. John Preece, of Marden. The cost of the Bridge was something over £3,000.

NEWCASTLE.—The new Baths and Washhouses erected in Gallowgate by the Corporation have been opened for public use. The buildings have been erected from plans furnished by Mr. Gibson Kyle, the English style of Architecture being adopted. The frontage in Gallowgate is 78 feet, and there is a frontage in Strawberry Lane of 213 feet. Ruabon pressed red bricks and stone from the Dunhouse Quarry, near Barnard Castle, have been principally used in the construction. The Baths are entered from Gallowgate, the men's first-class Bath Hall being provided with eight Fire Clay Baths and two Shower Baths. The second class Hall has eight Baths, and room is provided for more if required. There are also women's first and second class baths, and other apartments. In the Wash-houses, which are entered from Strawberry Lane, there are 36 compartments, fitted with all the most modern steam and other appliances. The place throughout is well lighted and ventilated, and seems calculated to meet all the requirements for which the building has been erected. The opening of the new edifice will be followed by the destruction of the old Baths and Wash-houses at the corner of Newgate Street, as they are to be pulled down in order that Gallowgate at that part may be widened. Mr. C. W. King has been the contractor.

DUNDEE.—By authorising the expenditure of £4,000 for the covering in of a part of the Cattle Market, the Dundee Town Council has initiated an improvement which has been advocated for many years. The scheme approved applies to the portion of the Market immediately adjoining Market Street, and extending 60 yards eastward from the western boundary wall, excluding, however, the roadway which enters from Market Street. The area to be covered in measures over 4,000 square yards. The roof, which is to be slated, will be supported by four rows of cast-iron columns, and carried on timber-roof principals. The ridge of the roof will be 28 feet above the ground, while light and ventilation will be supplied by means of rows of roof lights and louvre boards. The new fittings will be of timber and the floor is to be laid with tar macadam. On the north and west the area in question is enclosed by boundary walls, and on the south and east timber cleading will serve the same purpose. The first set of plans provided for the covering in of between 5,000 and 6,000 square yards at an estimated cost of £8,300. The area was reduced, and by adopting tar macadam instead of whinstone paving it was found possible to bring down the cost to £4,850. At a recent meeting of the Markets Committee it was resolved to substitute timber for iron roof principals, and by making several other modifications the estimated cost was reduced to £4,000.

WEDNESBURY.—A Science School was opened on the 12th inst. It fronts Holyhead Road, being situated between the Post Office and the School Board Offices, and thus, with the Municipal Buildings and the Art Gallery, five of the public buildings of the town are in a line. The materials used are red brick with facings, and the inscription "Science School," over the main doorway, in terra cotta; and although the front space is rather circumscribed, an effective appearance has been given to the building. The ground floor is occupied with the Entrance Vestibule; an Exhibition Room, in which it is proposed to exhibit specimens of the manufactures of the town; and a Metallurgical Laboratory, with Furnace Room attached, containing all the latest improvements, and having appended to it a Balance Room, Stores, Lavatories, &c. The rapid fall in the direction of Albert Street at the back has been utilised for Workshops, Stores, and a second entrance under the ground floor. Above the Exhibition Room and Metallurgical Laboratory are placed the Chemical Laboratory, a Lecture Hall, Class Room, Balance Room, Stores, and a Teachers' preparation Class Room. The buildings are of a very substantial character, and all the several parts of the School have been supplied with the best and most modern appliances. The rooms are all large, commodious, well lighted and ventilated, and hot-water pipes and radiators are laid on all over the building. The total cost of the structure and furniture will be upwards of £2,000, towards which the Staffordshire County Council and the South Kensington Department will contribute about one-half. Mr. C. W. D. Joynson, Architect, Wednesbury and Darlaston, furnished the plans and superintended the work of erection, which was carried out by Mr. Thomas Tildesley, Willenhall.

Trade and Craft.

THE STRIKE IN THE LEEDS BUILDING TRADE.

The dispute in the Leeds building trade is now in its sixteenth week. A very large proportion of the bricklayers are said to be tired of the struggle, and quite ready to accept the terms of the masters if the labourers would follow their example. It is said that many of the big contracts on which the bricklayers are engaged on the outskirts of the city are approaching completion, and that as the employers must guarantee a minimum of some months of work for the labourers who are about to be brought in from a distance a difficulty may arise, as the winter, when constant employment is impossible, is approaching. The masters, therefore, are trusting that all the Leeds bricklayers and labourers who are concerned will look well forward, and bear in mind that the imported men must be promised work for a considerable and definite period. The Master Builders' Association denies that any of its members have given the advance, and asserts that nearly all the work now proceeding is being done by non-unionists.

THE COSTLIEST RAILWAY IN SCOTLAND.

The Central Underground Railway, which is the longest underground line in Scotland, although but seven miles in length, was recently opened. It is the costliest railway ever constructed in that country, the expenditure amounting to over £200,000 a mile, and reaching fully £1,500,000 altogether. It runs from Rutherglen, in the east, by way of the districts around Brigdeton and the Glasgow Cross, on to Finnieston and Hillhead and Kelvinside, and terminates at Maryhill. The engineering difficulties encountered in its construction, more particularly under Argyle Street, were of the most trying description. No less than £350,000 were spent in rearranging sewers, and gas, water, and electric light mains, and long stretches of property had to be underpinned by piling owing to the fear of subsidence while the tunnel was being constructed. A unique feature of the line is what is known as a "bell-mouth" arch, under which two tunnels emerge into one large tunnel, all being underground. The signalling at the chief Station—the Central—has been arranged on a novel plan. Owing to the lack of space for a cabin for 50 levers, a small erection takes its place, where a series of short levers work corresponding levers of the ordinary size by hydraulic power in a cabin fully a mile off. The Central Station, although underground and of huge dimensions, requires no artificial light by day, and in the West End the Station at the Botanic Gardens is of a peculiarly ornamental design. It is latticed after the Old English style of Architecture, and topped with gilded minarets. The engineer of the line was Mr. Charles Formans, of Glasgow, who laid the West Highland Railway to Fort William.

AN ARCHITECT'S CHARGES.

At the Stockton County Court, Mr. John Sanderson, Architect, Stockton, sued Mr. Ralph Henderson, of Thornaby, for £2 10s. for professional services rendered. The defendant had a piece of land at the corner of Eldon and Gilmour Streets, Thornaby which in March, 1895, he was trying to utilise. He had had negotiations with the authorities of the Salvation Army, who were probable lessors of a building to be erected on the land. Plaintiff went to see him on March 2nd, and after measuring the site Mr. Henderson gave him instructions as to the size and nature of the building to be erected and its cost. It was not to cost more than £500. Plaintiff arranged to let him have plans in the course of ten days. There was a further arrangement between them that if the negotiations were successfully carried out, plaintiff was to receive £5 per cent. on the cost of the building. If the building was not carried out he was to make a reasonable charge for services rendered. Plaintiff made a plan and approximate estimate of cost, and delivered to defendant in person, and the latter was gratified with them. Plaintiff never heard anything more about it till January last, when he sent in an account for £2 10s. This was not attended to, and in March last plaintiff sent him a letter, the result of which was that defendant and a Mr. Sandford came to see him, and tendered 30s., which he refused to accept in full payment. The 30s. had been paid into Court after the action was entered. A verdict was found for plaintiff for the amount claimed with costs.

UNITED PLUMBERS' ASSOCIATION REPORTS.

From the two last reports of the United Operative Plumbers' Association it would appear that, like a good many societies, some trouble is being experienced on account of the benefits increasing more rapidly than the subscriptions. The superannuation benefits which have recently been introduced appear to have been made retrospective in their character, *i.e.*, that the present old members are to be put on superannuation on attaining the age fixed, although they have paid nothing towards it. This does not appear to be fair dealing. The proper system is that adopted by some societies where a special payment is made for superannuation, and only those who have qualified by paying the requisite number of years can come on the fund. This principle applied to the Plumbers' Association would mean that a considerable number of years would have to elapse before anyone would be entitled to the benefit; but, in the interval, the fund would have been placed on a sound basis. There is, however, another point referred to in the report, and that is their solution of the apprentice difficulty. Like many other skilled trades they had their trouble in this direction, and they have settled it by arranging with the employers to allow one apprentice to a shop which employs one or two men; two apprentices to three or four men; and three to five or six men, with a somewhat more limited scale as the number of men employed gets higher. This is a fair arrangement, and will compare very favourably with that made by some other sections whose action in the past in regard to this matter has been condemned.

SILVER TROPHY FOR INDIA.

A sterling silver shield, 14 inches in diameter, and weighing nearly 300 ounces, has been executed by Messrs. Martin Hall and Co., Sheffield, for India. The central disc is repoussé work in the highest relief. The upper right hand portion is occupied by the figure of a mounted native lancer. On the left hand side, and divided from the mounted man by a group of lance-pennons, are the figures of two dismounted native lancers, standing at "attention." The background is filled in with Indian ferns. The lower part of the body of the shield is a study of Indian palm leaves and ferns, chased, and in the centre appear the regimental colours. The outer ring, or moulding, which surrounds the centre part just described, is arranged in alternate laurel wreaths and panels of oak and lotus leaves, the whole shield being encircled by a massive laurel mount. The groundwork of the shield is oxydised, and all the embossed work gilt, the appearance of the trophy, in its massive oak, glass-fronted case being very striking. The whole of the repoussé work has been executed by Mr. Weston Smith, who received his Art training at the Sheffield School of Art.

THE NOTTINGHAM PLUMBERS' STRIKE.

The dispute in the Nottingham plumbing trade, which has now reached its third week, has undergone a change. This has been occasioned by the action of the other branches in the building trade taking decisive steps to support the strike in the interests of the plumbers. The strike has, therefore, entered upon a new phase, and it is hoped the extension of the dispute may pave the way for a settlement. Since the strike began there has been no desire expressed for the employers and operatives to meet and discuss matters. Both sides appear to be waiting for the other to first make advances. The operatives contend that from the first the Master Plumbers' Association has studiously and purposely ignored their demand. Although the Union officials express a willingness to meet the employers to discuss in detail the causes of the dispute, and as an attempt has been made to employ non-union labour by one large firm, the other branches in the building trade have been appealed to for assistance. The local branch of the Plumbers' Union is affiliated with the Building Trades Council, which represents the whole of the branches of the building trade, and it is this body that has taken action in support of the plumbers. The employment of a non-union plumber at a building in King Street led to several protests being made, but without avail, and in consequence the whole of the plasterers and labourers have ceased work. This had not the desired effect, and in consequence a meeting of the executive committees of each branch of the trade was held at the Clinton Arms, Shakespeare Street, to discuss the situation. There was a large attendance of representatives present, and after a rather protracted meeting it was unanimously decided to give every support possible to the plumbers. As a result of this decision all the joiners employed by the firm on the building ceased work, with the approval of the carpenters' and joiners' executives. Similar action will, it is expected, be taken in other cases if necessary.

HEAVY COMPENSATION.

Mr. William Clarke, of No. 1, Coburg Place, and No. 1, Queen's Road, Bayswater, preferred a claim in the London Sheriff's Court, against the Central London Railway Company for £10,000, as compensation for the compulsory acquirement of his premises by the Company, in connection with the line from the City to Shepherd's Bush. Mr. Freeman, Q.C., who appeared for the Railway Company, stated that a settlement had been arrived at, and a verdict by consent was agreed upon for £6,500.

SOCIETY MEETINGS.

Sheffield Art Society and Sketching Club.—The monthly meeting and exhibition took place on the 13th inst., when about forty pictures were exhibited. Mr. W. Lindley presided. Mr. Lindley showed three large oil paintings executed in his usual sober and truthful style—one an interior of a forge, and two views in Lincolnshire. Mr. W. Hunt was well represented by about fourteen very effective water colors of local bits; two sketches of corn fields showing particularly good and bold work. There were several out-door sketches into which horses had been introduced very effectively by Mr. J. T. Loxton. Sketches of surf and rocks near Flambro' were very delicately and charmingly drawn in water colours by Mr. W. Farnsworth. Mr. W. E. Backhouse had a figure subject "Fisher Girl" and a sketch at Grindleford. Two water colours of "Burbage Moors" were exhibited by Mr. J. Redfern. Mr. C. E. Hall sent two studies of stream and boulders. There was an "evening effect" in oils and two watercolours, "Burbage Moors" and "A Welsh Farmyard," by Mr. J. B. Hinsworth. Several interesting critiques were given on some of the works, a debate following, in which most of the members took part. It was decided to recommence the life class for the winter season on Monday, September 7th.

A DESIGN has been accepted for the proposed Memorial in Chichester Cathedral to the late Bishop Durnford. The Memorial, which will consist of an Altar Tomb, with recumbent effigy, will cost £2,000.

MESSRS. PULLAR, dyers, have contributed £5,000 towards the erection of the new Bridge across the Tay at the foot of South Street, Perth. Altogether £7,000 has been raised. The cost of the bridge is estimated at £12,000.

AN interesting discovery of Roman pottery has been made at Bourn, Lincolnshire. No less than five vases have been unearthed by men engaged in enlarging the gasworks. The vases are each fourteen inches in height, seven inches in diameter at the top and base, the widest circumference being three feet. They are thin, but hard and smooth worked. They were found inverted, embedded in clay about 6 ft. 9 in. below the surface. Four have a pair of ear-shaped handles. It is worthy of note that Eastgate, where the discovery was made was formerly called the Potters' Gate.

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THE MORTON HALL, NEWMILNS, AYR. Mr. Arthur Harrison, Architect, Birmingham.

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The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. IV., No. 81. **Wed., August 26, 1896.**

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A Doomed Church Saved.

The admitted pride in our London City Churches has been too frequently of the kind which "goes before a fall." The proverb would apply literally. And a consuming commerce has been responsible for almost as much demolition as the Great Fire. We are all the more glad, therefore, to note the salvation of St. Mary Woolnoth, and to be able to congratulate the representatives of the widely-ranging influences and interests which have worked to save Hawksmoor's edifice from the spoiler. The habit of attacking these Milestones and Sanctuaries of Religion and History, always a despicable habit, had engendered of late years an impression among Dick, Tom and Harry that "nothing was sacred." A suggestion of their value to the nation, or to the character of this magnificently-traditioned City of London, was inevitably received in certain circles with a snort or a smile. "The utility of the scheme (whatever it happened to be) was too obvious"—ran the catch-phrase. Anything in the way of boring, unsettling, disturbing was hailed as an improvement to London, and we can never forget that this vandal and iconoclastic spirit threatened, at one time, the foundations of St. Paul's. That over-bold and swash-buckler stroke may be regarded as sounding the first note of a growing public distaste for this policy of destruction; a note calling for a Renaissance of reverence. So we see, with growing pleasure, a greater number at Architectural worship, which is only one form of many, yet a good one, since we are taught that there are Sermons in Stones. The reversal of Utility, which, threatening St. Paul's, has had to yield even St. Mary Woolnoth, should be amply encouraging for further effort when needed. The fact is, we cannot spare one of these remaining hostages of bygone days. We are not wholly concerned, even as a professional Journal, with the Architectural merits or demerits of Hawksmoor's work. As to these we agree in the main with the very pertinent letter of "An Architect" which appeared last week in *The Times*. "An Architect" wrote: "The exterior façade is not exactly beautiful, but it is valuable as a very characteristic example of Hawksmoor's strong and defiant originality in Architectural design—a quality not very common in post-Renaissance Architecture." But there can be no question but that the interior, as a small Church for congregational worship, is one of the finest Architectural conceptions of its class in London—or anywhere else for that matter." It is this Church, as a Church, which has been saved. But this is not all. We have more than once pointed out, in emphasizing the attitude of the Institute on the question, that it is more than probable that, for a thousand years, a Church has been associated with this spot. This, if one cares for the Tradition and History of the City at all, should have weighed with some shamefully derelict Church Authorities before they ever permitted a railway company to obtain powers over St. Mary Woolnoth. These railway companies are the giant moles of disturbance, scratching below the surface and throwing up their navvy heaps. They have done their worst, they should have been restrained years ago, but it is not too late to lop off some of their schemes and branches. While a spire stands, however threatened, there is hope. St. Mary Woolnoth seemed utterly lost and yet has been saved, thanks, in varying measures, to Sir Joseph Savory



IN KENT WITH THE A.A.: STROLLING SKETCH BY JOHN BEGG.

and a determined committee; to the R.I.B.A., which was earnestly awake to the issue, and to a number of people who, by writing letters (frequently, it must be admitted, without *raison d'être*), have managed to keep the public warm upon the matter. Finally, giving credit where credit is due, blame must be distributed with equal open-handedness, and the Rev. J. M. S. Brooke, the rector of the doomed Church, comes in for a very comprehensive share. We have long been aware that Mr. Brooke allowed the Church to slip through his fingers into the clutches of the Railway Company, and there can only be bare justice in now making the fact more widely known. A more sorrowful piece of clerical indifference it would be difficult to find.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

ABOUT sixteen members of this Association made their third annual Excursion to Oxford. The first building visited was the new Municipal Offices, and owing to the unavoidable absence of Mr. Hare the party were conducted over the whole of the buildings by Mr. Evans, the Clerk of Works, who took considerable pains to point out and give information respecting all the details of arrangement, construction, and finishing. It was rather reversing the usual order of things at a place like Oxford to give attention to a building in course of construction before taking up the old work, but, owing to the holidays, it was more convenient and also interesting to work, as it were, backwards, and notice afterwards the examples which had to a great extent influenced the character of the design, and see how the Architect had brought up much of his rich detail and finishings to the advancing ideas of the time, and the building is a most interesting sequence to, say Mr. Jackson's Schools, and cannot fail to show to future ages the movement of Architectural thought in the nineteenth century. Christ Church, being adjacent, was examined next, and the rest of the day was spent in a cursory glance at most of the Colleges, under the able guidance of Mr. Cotton, who briefly pointed out the historical and interesting features of each. So far as the sketch-books were concerned, St. John's, Magdalen, Wadham, and New Colleges perhaps received the most attention; at the first-named an old Birmingham man acts as porter, and gave more than usual facilities. The new Church of St. Vincent, by Mr. Bodley, for the Cowley Fathers, shows how dignity and grace may be obtained by studied proportions and mass of wall surface without the aid of costly and elaborate detail; here a plain building of stone and plaster bears upon its surface at every point the hand of a master, and possesses that subtle charm which only the work of artists really has. An interest is given to the roof by being painted by one of the Fathers, who was a former pupil of Mr. Bodley, and who worked under his direction. Iffley Church, too well known to need description, was reached by boat, and also Abingdon, where numberless bits in the town, with views of the Churches, Almshouses, and interesting Market invited the sketcher, but time allowed but a glance before the boat started on its return journey up stream to Oxford. Dinner at head-quarters, the Wilberforce Hotel, in Queen Street, brought all together again before returning to Birmingham at the end of a very enjoyable excursion.

A SPECIAL meeting of the Pontypridd Urban District Council was held last week to consider the various sites available in the town for the proposed County Offices.

MESSRS. JOHN ROUND & SON, LIMITED, Tudor Works, have completed a piece of statuette work in silver, being a Portrait Model of Col. C. E. Freeman. Col. Freeman is represented fully equipped and mounted, and the modelling, chasing, and workmanship have been entirely done at the Tudor Works. The group measures a total height of 17 inches, with a length of 15 inches, and stands upon a highly-polished ebony plinth 4½ inches high, and the total weight of silver is 135 ounces.

DEVONSHIRE HOUSE.

THE WORK OF HUGH MAY AND KENT.

AMONG the great capitals of civilisation there is no more celebrated street than Piccadilly. The origin of its name is still disputed, although it is supposed to date from the time of Charles II., who, when he took his morning's walk in the Green Park, used to buy some cakes, called "pickadils," from an old woman who kept her booth on a spot opposite to the present site of Apsley House. At that time there was no house in Piccadilly to the west of Berkeley Street, with the exception of Berkeley House, which occupied the site upon which Devonshire House now stands. Berkeley House was

BUILT IN 1665 BY HUGH MAY,

for John Lord Berkeley of Stratton. Evelyn says in his "Diary": "I dined at John Lord Berkeley's in his new house, or rather Palace, for I am assured it stood him in neare £30,000. It is very well built, and has many noble roomes, but they are not very convenient, being all roomes of state without clossets. The staircase is of cedar; the furniture princely; the forecourt most noble; so are the Stables; and, above all, the gardens, which are imcomparable by reason of the irregularities of the ground, and of a pretty fish pond. The holly hedges on the terrace I advised the planting of." Twelve years later, we come across another entry in William Evelyn's "Diary"; "June 12, 1684. I went to advise about building two new streets in Berkeley Gardens, reserving Berkeley House and as much garden as its breadth covers. Meantime, I could not but deplore that sweete place, by far the most noble gardens, courts, and stately porticos anywhere about towne, should be so much straightened and turned into tenements. But that magnificent pile and gardens contiguous to it, built by the late Lord Chancellor Clarendon, being all demolished and designed for piazzas and buildings, was some excuse for my Lady Berkeley's resolution of letting out her grounds for so excessive a price as was offered, to wit, neare £1,000 per annum for mere ground rents; to such a mad intemperance has the age come of building in and about a citty already by far too disproportionate to the size of the nation, I having in my time seen it grow almost as large again as it was in my memory." These two new streets in Berkeley Gardens, which Evelyn, the greatest landscape gardener of his day, was invited to lay out, are now Berkeley Street and Berkeley Square. The ground on which they stand was originally called "Hay Hill Farm," and Berkeley House was long regarded as the

FINEST MANSION AT THE WEST END:

When the Princess Anne, afterwards good Queen Anne, was driven from the Cockpit at Whitehall by the odious persecution of her sister, Queen Mary, wife of William III., she took up her abode at Berkeley House, where she and her husband remained as the guests of Lady Berkeley, then a widow, until Queen Mary's death. In 1697 Berkeley House was bought from the executors of Lady Berkeley by William, first Duke of Devonshire, who took so prominent a part in the Revolution of 1688, supporting William III. with all his strength. In 1707 the Duke died in Berkeley House, which was totally destroyed by fire on October 16th, 1733. The fire at Berkeley House was one of the most terrible conflagrations that the West End had seen down to that time. We read in the "Daily Journal" that the Library and a great part of the third Duke's valuable pictures, curios, medals, and sculptures were saved, but that the loss was estimated at considerably more than £30,000. The author of the "New Critical Review of Public Buildings" speaks very highly of the former Devonshire House (Berkeley House) the ruins of which were still standing in 1736, when he wrote. He attributes its destruction to the carelessness of the Duke's servants. He describes it as simple in plan, yet very elegant and quite worthy of the master hand of Inigo Jones, its only fault being the great number of chimneys, which he calls "a heavy Gothic encumbrance to the whole." He laments the loss of a fine statue of Britannia, which, having escaped the flames, was accidentally destroyed by a further act of carelessness. The present Devonshire House, was built about the year 1737, by William, third Duke of Devonshire, on the site of part of the property of Lord Berkeley of Stratton.

THE DESIGN WAS BY KENT,

and the cost upwards of £20,000. The house recedes a little from the rest of the houses in this street. It has little or nothing in its exterior appearance to recommend it to particular notice, except its ugliness; but its interior is richly stored with some of the finest works of Art in any private collection. The entrance of the house was originally up a double flight of stone steps, arranged as an external staircase in the front, and leading straight into the reception rooms on the first floor; but this arrangement was done away with by the late duke, who made the entrance on the ground level into a Hall of low elevation, beyond which he threw out, on the north or garden side, a semicircular apse, containing a new staircase. The interior staircase on the north side, of marble and alabaster, with rails of solid crystal, was erected by the late duke. The ornamentation of the great staircase, and most of the rooms in the house, is by Mr. Crace. The Picture Galleries are scattered through the long range of rooms which passes all round it on the first floor. It would be impossible to give in this article a complete list of the Art treasures that are to be found here; but we may mention a few of the most important. In the large North Room hang "The Madonna and Child and St. Elizabeth," by Rubens; "The Prince and Princess of Orange," by Jacob Jordaens; and also a portrait, unknown, by Titian. In the Green Room, adjoining, is "Jacob's Dream," by Salvator Rosa; and "Samson and Delilah," by Tintoretto. In the Blue Drawing Room is "Moses in the Bulrushes," by Murillo. A small room on the north side is hung almost entirely with specimens of Van Dyk, including a noble portrait of the late Lord Strafford; and in the same room is Lord Richard Cavendish, by Sir Joshua Reynolds. A list of some of the finest pictures to be seen in this mansion is printed in Dr. Waagen's work on "Art and Artists in England." In the Library here is kept John Philip Kemble's celebrated collection of old English plays, probably the finest in existence. It was made at a cost of £2,000, and was purchased by the sixth duke after the collector's death. The library is very rich also in other departments of Early English literature. The gardens in the rear of the house are mostly laid down in turf, as lawns, and contain some fine elm trees.

ATTENTION has been directed to the state of the paving in Oakley Street, Chelsea, which is the direct route from King's Road to the Park. Along its three hundred yards is some of the worst and oldest wood pavement in London.

AN anonymous donor has just given £1,500 to the Church Army for the purpose of providing and furnishing a Lodging Home for Men adjoining the Society's Labour Home for the Outcast in Holloway. The St. John's Lodging Home in Lisson Grove, which was presented to the Society by one of its central staff, who are all honorary workers, has been filled to its utmost capacity every night since it was opened, nearly three years ago.

THE World's Fair Chicago Medals are all of bronze. They measure 3 in. in diameter, and weigh 6 oz. 10 dwt. (troy weight), against 3 in. in diameter and 8 oz. 18 dwt. (troy), the weight of the Centennial Exhibition medals of 1876, issued at Philadelphia. The one innovation in the new medal is that the names of the respective recipients occur in raised letters upon the face of the actual medal itself. In all former International medals the names have always been simply engraved, generally upon the edge. We have received photographs of the obverse and reverse sides of the Chicago medal, which is, certainly, by no means a good example of the numismatic Art, from Messrs. Harry Hems and Sons, of Exeter. The stagey attitude of Columbus himself on the obverse face, who appears to be throwing himself in despair from a rock into the sea, is ludicrous in the extreme.

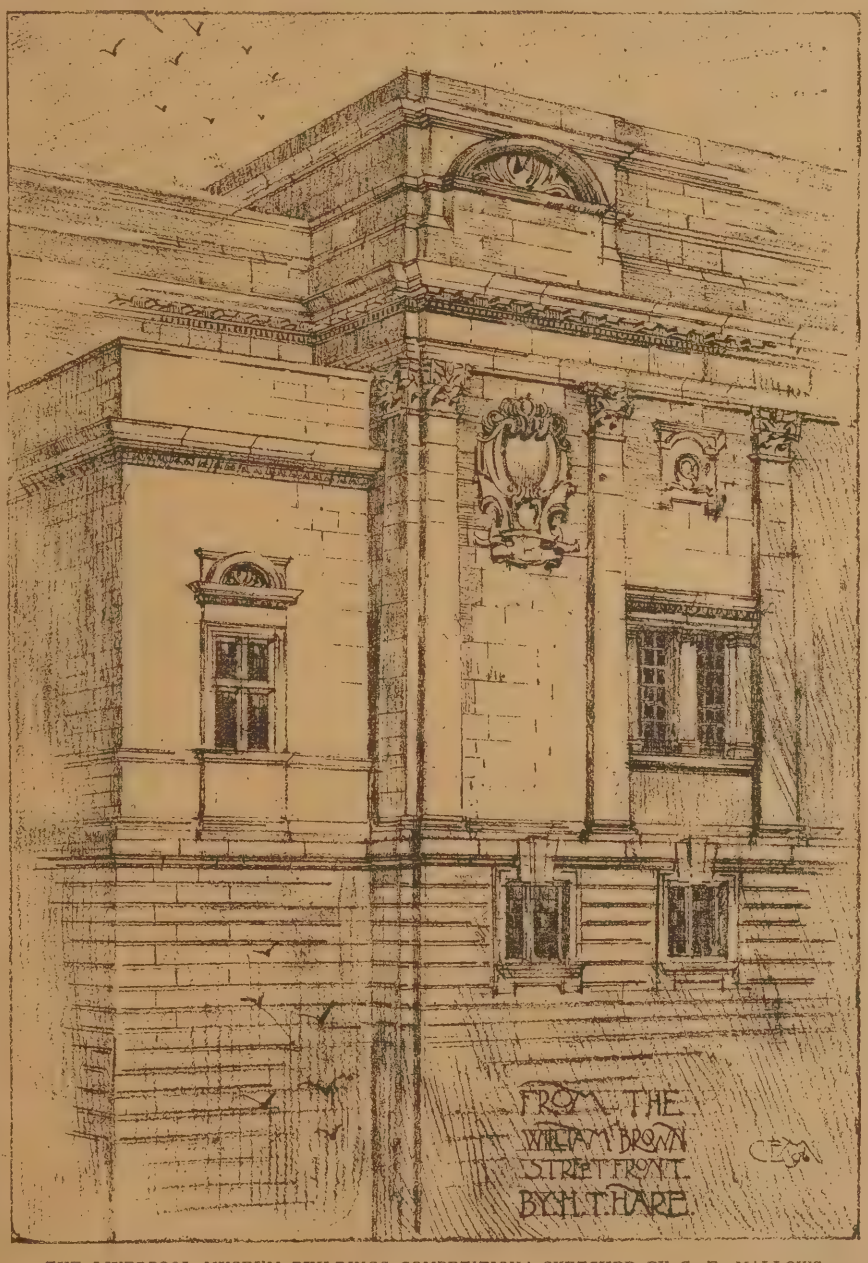
TEN THOUSAND YEARS OLD.

PROFESSOR HILPRECHT'S DISCOVERIES.

THE discoveries made by two expeditions that have been and are still working in Babylonia are of general interest. A French expedition has for some time been at work at Telo, and has been remarkably successful. But the American expedition has produced even more remarkable results. At present the head of the expedition is Professor Hilprecht, an American who occupies a foremost place in everything relating to Babylonian archæology. Upon him has devolved the task of classifying and deciphering the enormous number of inscriptions which have been found at Nippur. Professor Hilprecht says that it will be years before the Pennsylvania University will be able to publish all the inscriptions which have been deciphered, but the publication has already begun and gives promise of a rich harvest. The first and most notable result of the excavations is that the history of the Babylonian people as recorded in the cuneiform writing on tablets is carried back at least two thousand two hundred and fifty years further than it had yet been known. In other words, there is now abundant written evidence that the Babylonian people existed and were civilised enough to be able to write at least seven thousand years before Christ. In his judgment the written records probably went back as far as 8,000 years B.C., but he does not intend to print anything which could not be amply borne out by evidence. To have pushed back written history at one stroke by 2,250 years is, however, enough to make a reputation. In reply to an enquiry how it happened that his predecessor had not found the many objects which belong to this early period, he said that Dr. Peters, to whom he attributed great credit for the manner in which he had opened out the great mound at Nippur had worked down to a certain floor or platform which he and others had taken to be the ground level of the ancient city. One of the party, however, suggested that this level should be penetrated, and digging continued until rock or virgin soil was reached. The suggestion was adopted, and it was found that what had been taken for the level of the ancient city was only the level of a comparatively modern city built over the ruins of an older one or a succession of older ones. The excavations above the level or platform had gone through thirty-six feet of débris. They were now continued to a depth of thirty feet below it. The excavations above the platform discovered remains which covered a period of 4,000 years of Babylonian history. Below the platform to the virgin soil was an accumulation of drains, preserved and broken pottery, and various other objects of interest. Twenty-three feet below the platform they came upon the most ancient keystone arch known, an arch which Professor Hilprecht thinks cannot be later than 5000 B.C. Last summer Mr. Haines, who has spent the last three years in continuous work at Nippur, excavated the lower part of the marvellous wall of the city. Its foundations were found to be sixteen feet below the level of the desert; the wall itself was seventeen feet high and forty-five feet wide. Upon the top of this wall was another of unknown height. These walls were built of

BRICKS TWENTY INCHES SQUARE,

probably the largest bricks ever used. The most valuable finds, however, were the inscriptions upon broken vases, bricks, tablets and other objects, and from this it is confidently predicted by Professor Hilprecht that a continuous history of Babylonism will be able to be written. Among the recent finds of the French expedition which has been, and is still, working at Telo, are a number of dated cuneiform tablets of Sargon the First and of his son Naram-Sin. These have now reached Constantinople, and within the last two months have been submitted to the examination of Monsieur Heuzey, director of the Museum of the Louvre, and of Professor Hilprecht, who has been retained by the Turkish Government to decipher and classify the objects found by both expeditions. By this important find all questions as to the mythical character of Sargon is put an end to, and he is shown to have been a real person. The contents of the so-called Oman tablet are definitely decided to be historical and not mythical. One of the new tablets speaks of "the year when Sargon marched against Palestine" (Martu). This was 3800 B.C. Even were no other finds to be made the inscriptions gathered by the two expeditions will add largely to the knowledge possessed of the history and civilisation of Babylonia.



THE LIVERPOOL MUSEUM BUILDINGS COMPETITION: SKETCHED BY C. E. MALLOWS.

WITHOUT ceremony of any kind the great lock on the Sault Ste. Marie Canal, which connects the American lakes, has just been opened. This lock is one of the greatest constructions of its kind in the World, and it has taken seven years to construct. It is 800 ft. in length between the gates, and 1,100 ft. over all; 43 ft. high, 100 ft. wide, and will accommodate boats drawing 21 ft. of water. Its giant centrifugal pumps, driven by compound Westinghouse engines, can fill the lock in thirteen minutes, and empty it in eight minutes.

THE Bethnal Green Vestry has decided to acquire three separate establishments in different parts of the district for the purpose of Baths and Wash-houses, the former to be private, and no provision to be made for swimming. One establishment is to be erected first, as an experiment, to contain thirty baths for men and fifteen for women, together with from thirty to forty stalls for washing.

AFTER a three years' struggle in the Lambeth Vestry as to whether the Electric Light should be provided for the use of the inhabitants of the parish by the Vestry or a private electric lighting company, it has at last been decided as the most economical course to transfer the Vestry's provisional order to Julius Sax and Co., to whom the City of London some time ago entrusted the electric lighting of Smithfield Meat Market. In consideration of this concession 25 arc lights are to be placed, free of charge, at the disposal of the Vestry for the general benefit of the parish.

WHEN the new clock at St. Paul's Cathedral was erected about three years ago the dials had their central parts fitted with white glass for illumination at night. This white glass has been found to make the dials less distinct by day, and also not to be in Architectural harmony with the Cathedral. Instructions have, therefore, been given to the makers of the clock, Messrs. John Smith and Sons, of Derby, to fit in new dark central parts to the dials. It may be mentioned that the total diameter of the dials is about 17 ft., and the central parts are 10 ft. in diameter. When this work is done the dials will have the same appearance they had before the new clock was fixed.

M. DEVIC, an able French engineer, has devised a new sort of Tower, not so high as Eiffel's, but equally curious, for the Exhibition of 1900. He calls it the "Palace of Progress," and proposes to construct it of steel and to ornament it with nickel, aluminium, crystals, and artistic pottery. It will also revolve and be hexagonal in form, the top being surmounted by a Gallic cock. On the different floors or landings, restaurants, theatres, and concerts could be organised. The monument would also be ornamented with clocks, and contain a colossal organ and a chime of bells.

The South Kensington Museum AND THE National Competition.

Important to Students.

TO the Architect and all Art workers the South Kensington Museum is, to all intents and purposes, as a mine of undiscovered wealth, and, for the most part, unexplored. We say that advisedly and quite conscious of all the drawings and studies that have been made there in recent years, but which, nevertheless, have only touched upon the borders of an all but inexhaustible storehouse of Art treasures.

We wonder what proportion of present Architectural Students fully realises the extraordinary advantages the Museum affords? It is not a pleasant reflection, but all the same a fact, that nowadays it is practically left untouched. It is painful to go there at times and notice how the place is neglected, how few students avail themselves of it. So-called Art Students there are—and on students' days in numbers, but we are not concerned here with those who go either to while away the time or to devote a vast amount of misplaced energy and perseverance the reverse of commendable upon the most unfortunate selections of paint which are the reverse of artistic. Of Art Students in reality, we repeat, we see but few, and those that are working do so in a desultory kind of way at small details. There is an entire absence of penetrating and systematic study which was characteristic of student work some years ago. Take, for example, the Division of Measured Drawings in the National Competition in this and the previous year. It compares, making full allowances for the difference of the standard and ages of the students, very unfavourably with that submitted for competition in other places. Both in execution of the work and in the selection of the subject it falls much below its proper standard, more so, perhaps, in the latter because of the utter absence of direction and assistance from the proper quarters. Students are left to shift for themselves as best they may. This is a serious mistake, which we ventured to point out when reviewing the work last year; we suggested at that time it would be a simple matter for the examiners to give, with their criticisms, a list of good subjects in the Museum, in London, and in the Country, together with their reasons, and some useful directions of how to set about the work so as to gain the greatest and most permanent advantages from it.

As there appears to be no sign of the proper people doing this, we propose during the coming winter to undertake the task ourselves for the benefit of Art students generally, and, if we receive proper support, in a detailed and comprehensive way. We wish to warm and freshen up students' enthusiasm in this direction, specially with regard to the Museum, to point out to them the opportunities they are missing by the neglect of this wonderful place, and the immense benefit they would gain by steady and properly directed study within its walls.

There is absolutely no obstacle to work of any kind. There are no difficulties to overcome in the way of sketching orders; you can sketch everything, save the objects on loan, and if you are poor you cannot plead your poverty for there is nothing to pay. Bona-fide Art students are admitted free all the days of the week, and on Mondays, Tuesdays and Saturdays until 10 p.m. There are no fees, there is no trouble; everything is at hand, and the officials always obliging and ready with help. There is no disturbing influence, no dust and stinging worries as in the case of out-door work, no traffic or public to bother, the visitors are so few and far between.

If you are a student, ambitious to have ideas of medals and prizes galore, the Museum will find you all you want. There is no studentship offered, either at the Institute, Academy, or elsewhere, for which you will not find ample material to work from. The only difficulty and danger is in the proper selection of it for the purposes required. It is bewildering in interest and beauty.

If you are intent on winning the Owen Jones or the Pugin, for example, go there and search for your subjects. Not in all the years before you could they be exhausted. Beyond your materials, there are but two things required, and these are rather necessary, namely, ability to draw and a correct sense of selection. We do not propose to tell you how to do the former—no one can; but we can and will, from time to time, give advice and assistance, if desired, on the latter.

With a view of more practical and definite help in this direction, we shall, later on, offer something substantial in the way of money prizes for the best set of sketches in a given subject, and those to whom prizes are not awarded we propose to pay for the use of their drawings in our pages should they be of sufficient merit. In the meantime, we



SKETCHED BY E. A. RICKARDS.



FROM A SKETCH BY C. E. MALLOWS.

advise students to get to work at once. The sketches we shall require are those likely to be of practical service to our readers.

We want to use and explore the treasures of the Museum in a way they have never been used or explored before, and we are going to do it in earnest. Not in a superficial or desultory way—that would be neither fresh nor original, because it has already been done—but in a useful and systematic manner, dealing with the varied Arts in detail.

We want to use and direct in a proper channel the evident abilities of many young students to benefit themselves, and those of our readers in the provinces to whom the Museum is practically closed because it is inaccessible.

There cannot be a class of artists or craftsmen that illustrations from the Galleries fail to interest, because there is no art or craft there unrepresented. There are types and specimens of the Art of all ages, from a grotesque on a Norman capital to the acme of refinement of ornament on a Chippendale chair; from the great and gorgeous tapestries to the delicate and diaphanous embroidery of an empire dress; from a wrought iron standard of the time of the Crusaders to a beaten leaflet of iron by Huntingdon Shaw; from a metal-bound Cathedral coffer of mediæval times to the wooden windows of Peter Paul Pindar's house; from a fourteenth century necklace to a jewelled ring of the time of Beau Brummell.

All that which is most characteristic of the worship, the work, the handicraft, and the service of the old times that are gone, all that is best of the expression of the workman's love and delight in his work, is there. You can name no subject in Architecture, or in the Arts or crafts connected with it, upon which the Museum, either in its Galleries or Libraries, has nothing to say.

The Art Library is one of the finest, if not the finest, in the World, and its collection of prints, engravings, etchings, and so forth, second only to that of the British Museum.

The subject, like the Museum itself, is practically inexhaustible, but we may, perhaps, have said enough to encourage a few workers to go and see for themselves, and later on to let us have the results of their work. The amazing thing is that it should be necessary to write or call attention to such a place at all, but that there is the necessity is easily proven by a visit to the Art Library alone, where seat after seat will be seen empty, and that this is not an exception but a normal state of things several visits will prove. Whether the Library is so big that students lose themselves in it, or half of them are uncertain of its existence, and a quarter



SKETCHED BY E. A. RICKARDS.

indifferent, we cannot say, but we are inclined to the latter opinion. It is certainly not known and used to the extent it should be or anything approaching it.

One engaging quality the Museum has to the lay visitor—and it is only fair and just to put it on record—it shares with the Architectural Room of the Royal Academy the advantage of being a happy and desirable flirting ground, many a foundation of future domestic bliss or misery has doubtless been laid within its walls, and the place loved best is the iron-work Gallery separating the Architectural Courts. It is so nice and dark and mysterious, quite an appropriate place by the way to put delicate ironwork, that we ourselves have, more than once, been the unwilling but interested witnesses of several impromtu love scenes, set with excellent and appropriate back grounds.

The National Competition this year is both encouraging and disappointing. It is encouraging because, compared with the retrospective work in the adjoining Galleries which contain most of the more prominent prize work of the past ten years, it is undoubtedly of a much higher average of merit. It is disappointing because it is not nearly so interesting as last year's show. The Architecture is especially poor, and suffers greatly from the want of some controlling hand in choice of subjects in Design. So long as students are allowed to waste their time, energies and abilities on such impossible subjects as Cathedrals, Town Halls, Triumphal Arches and the like, so long will these competitions continue to yield for the most part unsatisfactory results. Those students who have kept themselves within reasonable bounds, and sent in small sheets of simple subjects, have all, more or less, given interesting and pleasing effects, and it is curious to notice how, even in these, the subject is so much better treated in detail than in mass and general proportion. An exception worthy of remark is the design for Wayside Inn, by E. F. Reynolds (Birmingham), whose charming little drawing for a riverside warehouse our readers will remember we published last year. He wins a silver medal again this year, and for his simplicity and restraint in design and excellent artistic feeling deserves a gold one. We hope to publish some sketches of his work in an early number, perhaps next week. Next in interest we should place the work of George A. Paterson, also a last year's medallist, whose design, a Gallery Front, is good in choice of subject and is worked out in a very interesting and original way. This latter quality, however, is not altogether to be commended in a student of 18. It is, nevertheless, very creditable to him, considering his age. An excellent example is set by Herbert T. Buckland, of the Birmingham Municipal School of Art, who has studied his design for a Cottage Hospital in clay; he gives a photograph of his clay model in the corner of one of his drawings, and it appears to greater advantage there than in the elevation and perspective, which are wanting somewhat in artistic feeling.

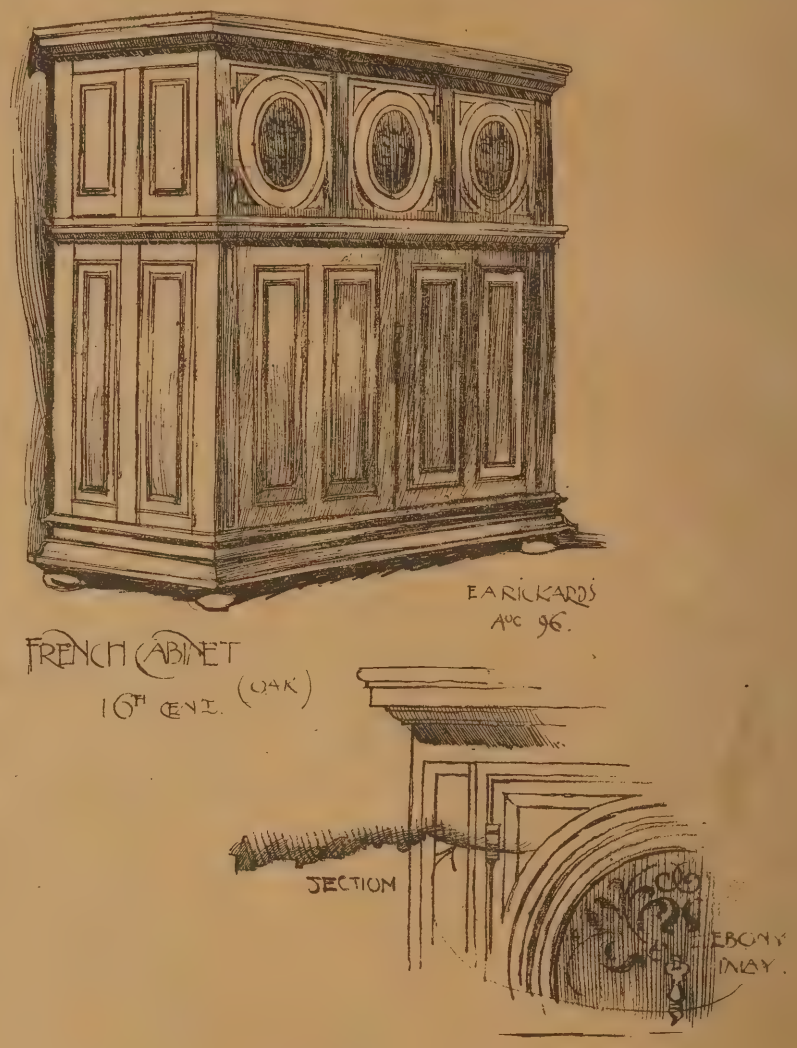
The Gold Medal subject is a Triumphal Arch, but the work submitted for it is not in any way to be compared to that of last year. The winner is Peter S. MacLauchlan, of Glasgow, and although his drawings, except the pencil perspective, are careful and very good for so young a student, we much prefer the other set as being more complete. His design, however, for the simpler subject of a Tea Room and Restaurant is excellent, in spite of the overwhelming terminals to the gables. He should cultivate his sense of proportion a little more. The design would have gained much if these terminals had been omitted altogether, and the author—so the Examiners say—would probably have had a silver instead of the bronze medal he now obtains.

We shall return again to consider the rest of the Exhibition next week, but we cannot close now without a reference to the very beautiful work contributed by Miss Florence Steele and Miss Lilian Simpson. The work of the students in Modelling has much distinction and refinement. The tile designs by Miss Simpson are delightful, and Miss Steele's exhibit of a door plate has much grace and character, if it is a little too exuberant.

To return to the Museum again. We publish on another page Mr. Rickards' pencil sketch of a recent addition to the Italian Court. The sculpture should be carefully studied, as it is one of the finest examples of Donatello's work. It is placed close to the Monument to Carlo Marsuppini (by Settignano), and both are from the Church of San Croce.

The cabinet is, perhaps, the best of the French work recently acquired and temporarily housed in the iron erection in the Court. Nothing could be much better in proportion and in detail, and in suitability of both to its purpose. It is a good example of a fine effect produced by very simple means.

The foot of the Crucifix and the exquisitely beautiful figure of Saint John are both in the same court, and should be seen and studied themselves to be properly appreciated. It would be difficult to find anything to equal the figure of Saint John in the history of mediæval sculpture. The chest of drawers is a good specimen of its kind, even if it is a little rococo.



SKETCHED BY E. A. RICKARDS.

A MONUMENT to the late M. Carnot has been unveiled at Châlons-sur-Marne by the French Minister of Public Instruction.

A NEW Railway Mission Hall, in North Station Road, Colchester, which has just been erected at a cost of some £1,050, was opened on Thursday afternoon last.

THE estimated capital expenditure for completion of the extension of the eastern wharves and sheds at Dundee, including additional hydraulic apparatus, is stated at £17.000.

A REREDOS has just been added to Cubert Church. The painting is by the Hon. Mrs. Robartes, and the framework, carving, buttresses, and cornices by Mr. Saunders.

FOR completion of the extension of the Eastern Wharves and Sheds at Dundee, the estimated capital expenditure, including additional hydraulic apparatus, is stated at £17,000.

AT Eauclaire, Wisconsin, a Music Hall which was being repaired, suddenly collapsed, burying a number of workmen. One dead body has been recovered, and fifteen men have been taken out alive, but seriously injured.

WE learn from Brussels that the spire of the Hôtel de Ville, which has presented an unusual aspect for many months past, is now finally enveloped in the scaffolding necessary for repairs, and even the bronze statue of St. Michel, which has overlooked the town for 400 years, is out of sight.

UNDER the direction of Messrs. Jenkins and Marr, Aberdeen, Cairnbulg Castle is being restored by Mr. John Duthie, of Cairnbulg. The scheme of restoration is an important one and will cost a considerable sum. Granite stones are at present being dressed at Corennie Quarry, Tillyfourie, to be used in the external walls, and the endeavour will be made to reproduce the appearance of the structure 300 years ago. In the restoration both the Square and the Round Towers will be preserved, and a new building introduced in place of the ruins between. The remains of the old moat will be converted into an ornamental lake.

ARTISTIC HOARDINGS.

M. PAUL DESJARDINS, so it is said, has a wish to draw out the latest critical faculties of the Parisian lower classes. At present they think too much of that awful mixture vended to them under the engaging title of "little blue," and not enough of High Art. Their time would be infinitely better occupied in visiting collections of the Old Masters, and in comparing, more or less, the archaic merits of Botticelli and Perugino with the fuller flavour of Rubens and Rembrandt. To remedy this defect, M. Desjardins proposes to placard the hoardings and dead walls of the city on the Seine with lithographed reproductions of the famous frescoes of Puvis de Chavannes from the Panthéon—at his own expense. Rightly or wrongly, he entertains the belief that this outlay—considerable as it will prove—cannot fail to elevate the morals of his poorer fellow-citizens. Gazing on the weird and, in some respects, wonderful compositions of Chavannes, the gamin and ouvrier may gradually develop the morals of a modern financier. The Panthéon is but a step from the Salon, and should the experiment prove effective, and the Parisian lower classes gradually grow at once angelic and æsthetic, a few dozen reproductions of the nude—of "La Source," for example, without which no Exhibition of the Salon could be considered complete—would probably finish their artistic education and raise their morals above par. Let our British philanthropists consider whether this French example be worthy of imitation. We possess dead walls and hoardings in plenty, and a large section of the uninstructed public who might be mentally bettered by the daily observation of the works of Sir Edward Burne-Jones, if only that truly great painter would consent to allow his masterpieces to be reproduced

FOR MURAL DECORATION.

The question next arises whether this great Metropolitan improvement should be left entirely to individual philanthropy. Might it not be taken up by the County Council, or by the piano-providing School Board? Surely Mr. Holman Hunt would not object to copies of his more serious efforts being pasted up in all workmen's trains, so that on going and coming from their occupations the horny-handed sons of toil might have their highly impressionable natures lifted above the sordid craving for beer and tobacco into the rarefied regions of the ideal! Not painting alone, but music and poetry might help in the good cause. Meanwhile, and failing an imitation of the French æsthetic philanthropist, we must be content with our hoardings as we find them, hoping for an improvement in the future. Even in the present there is very little cause of complaint. Great artists like the late President of the Royal Academy and Messrs. Herkomer, Luke Fildes, and H. S. Marks, have not, apparently, thought it any degradation to allow their pictures to be used for the adornment of our otherwise dead walls. A quarter of a century ago, when the calling of the

ARTISTIC BILL-STICKER

was just emerging out of its dark ages, the hoardings of the Metropolis did, indeed, for the most part, provide a fearful sight. Bad drawing and vulgar colouring were common. "Posters," however, have gone on improving in merit, until our hoardings are often almost equal in quality to some of the minor picture Exhibitions for which the public are asked to pay a shilling by way of entrance-fee. There is, according to *The Daily Telegraph*, in fact, no more reason why a painter of genius and reputation should not design a poster than should prevent him from decorating the outside of a Palace. The argument that a shower of rain or a rival bill-poster may obliterate his work goes for nothing, because the work itself remains; it is only a single impression that is destroyed. Moreover, it is strange that M. Paul Desjardins should have taken such umbrage at the Parisian placards, which, on the whole, are invested with more artistic merit than our own. Possibly he objects to them because of

A CERTAIN FLAMBOYANT TREATMENT

which cannot be denied; probably for the reason that they present his fair fellow-country-women in a manner which would not necessarily commend them to persons of Puritan ideas. He may fancy that a course of Puvis de Chavannes would correct that tendency to frivolity; and no one who has studied those weird, forbidding Panthéon frescoes will say him nay. However, the artists who draw our posters are gifted with the essentially English quality of restraint, and generally halt well within the limits of propriety. Were it otherwise we too might stand in need of an alternative even in the shape of the pious grotesque. As it is, our street picture galleries are agreeable enough to look upon, and are seldom guilty of the one unpardonable sin—that of artistic ugliness.

By the fall of a crane at the Naval Engineering College, Keyham, a man named Netherton was seriously injured. An extension scheme is being carried out by Shellabear and Sons, of Plymouth, and the crane was only lifting between two and three hundredweight at the time.

MR. EDWIN CLARKE, for many years district surveyor for the parish of Penge, under the Lewisham District Board of Works, died recently at his residence after a very brief illness.

THE death has occurred, at the age of 65, of Mr. Clement J. Casswell, of Horncastle, Lincolnshire. The deceased, who formerly belonged to Spalding, was a member of the Architectural and Archæological Society of Lincoln, Nottingham, and Leicester, and was also a member of the Spalding Gentlemen's Society—the oldest antiquarian institution in the kingdom.

THE Marquis of Bute has signified his intention of contributing £10,000 to the University of South Wales, to be applied for the purposes of technical education in Wales, the sum to be handed over to the authorities as soon as required. The Drapers' Company has also promised £10,000 towards the fund for providing new buildings, and the Government has promised £20,000 on condition that an equal amount is raised by public subscription.



SKETCHED BY C. E. MALLOWS.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
August 26th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

A GOOD Art critic story of the late Sir John Millais was told recently by his son, Mr. J. G. Millais. Almost the last work that Sir Edwin Landseer was engaged on was a life-sized picture of Nell Gwynne passing through an archway on a white palfrey. This picture, in which the horse alone was finished, was bought by one of the Rothschild family and given to Sir John Millais to complete. One morning a celebrated Art critic called, and was much impressed with his work. "Ah, to be sure," he said, going up close and examining a deer-hound, which almost breathed, in the foreground of the picture, "how easily one can recognise Landseer's dogs! Wonderful, isn't it?" "Yes, it is wonderful," remarked Sir John, lighting another pipe; "I finished painting that dog yesterday morning, and have done the whole of it myself."

IN the demolition of the Greyhound Inn, in the old-world village of Hendon, a quaint relic is about to disappear. The Greyhound was erected in 1676 on the site of a much older Inn, which was destroyed by fire in that year. The original building, as some assert, was used as a clergy house, but records show that it was a hostelry many years before its destruction by fire. Its connection with the Church, however, did not terminate with the rebuilding in 1676, as in the new lease it was arranged that a room should be put aside for parochial meetings, and as such was used till about twenty years ago. The parish documents are still kept in a safe in this room, and the property is owned by the Charity Commissioners. Apart from these associations perhaps the most curious fact in connection with the place is that it is situated practically in the Churchyard of Hendon Church, and until comparatively recently a bench was actually placed in the Churchyard, a few feet from the path leading to the south-west door of the Church.

TO those unacquainted with it the Jesuit Church in Farm Street well repays a visit. The front façade is an avowed imitation of the Cathedral at Beauvais, and is built in the Decorated Gothic of the fourteenth century. Everything was Gothic in the forties, and both Anglican and Roman Churches were being erected all over the country in this style, as was said at the time, the only difference being that the latter put statues in the niches, whilst the former did not. The Church consisted originally of a somewhat long narrow Nave and Chancel, there being no room for Aisles, as the Nave walls joined the houses on either side. The Altar and Sacrarium were 3 feet lower than their present level, but in 1869 they were raised, with a great gain in dignity of effect. The reredos, it may be noted, was designed by the elder Pugin. Under the sill of the great window (the glass in this is very painful) over the Altar are the Venetian mosaics, given in 1875 by Lady Milford; they represent respectively the Coronation of the Virgin and the Annunciation. On the Gospel side stands the small choir organ (St. Mary's has two organs; that at the west end is a fine Belgian instrument), the console being in the Chapel of St. Ignatius. At the entrance of the Chancel is a life-size figure of the Virgin with a lamp burning before it, and surrounded by candles. On one side of the Chancel is the Chapel of the "Sacred Heart," with a very handsome Altar, the front being entirely covered with hammered brass, the subject being Joseph and his brethren. The whole of the Chapel is exceedingly beautiful, the alabaster on the walls giving a rich appearance. A double Aisle, which was added after the Church was built, runs along the east side of the Nave. It was erected after the designs of Mr. Clutton in 1878. In this are the Chapels of St. Francis Xavier, the Apostle of the East, St. Joseph, and St. Aloysius; each of these contains an elaborate reredos. The "Mary" Chapel is on the right-hand side of the main door. It is dedicated to "Our Lady of Lourdes," and a replica of the celebrated statue of the Virgin, which is in the grotto of that place, stands in the reredos.

IN his report to the Science and Art Department on the examination in Design, Mr. F. J. Shields points out that "in many of the drawings it is very dubious which figure is intended to personify Virtue and which Vice. There is the haziest mental vision of their respective personalities. The students should not confine their aims merely to the acquirement of the language of Art, but should endeavour by solid reading and observation so to cultivate their intellects and imaginations that they shall fervently feel the subject they attempt to pourtray. There are so many of these exercises that are quite without any evidence of emotion—cold and vapid productions." In the subject of Drawing from the Life the examiners regret to say that the standard of former years has not been maintained this year, especially when the female figure has been the subject. They continue urgently to recommend that better-shaped and proportioned models should be set before the students.

CARRIED out under the direction of M. Esquié, the work of restoring the Arc de Triomphe in Paris will occupy a year, and it will be done in such a way that the additions will not be detected. It is not a little odd that this comparatively new Arch—it commemorates the achievements of the armies of the First Republic and the First Empire—should be in a more unsound condition than many of the similar structures erected by the Romans. The truth is that the Arc de Triomphe is built mainly of very porous stone, which absorbs water too readily.

AN interesting story is told of the founder of Morden College, Sir John Morden. He was a Turkey merchant, who traded at Aleppo, and amassed considerable wealth. The story goes that he put the whole of his property into three vessels, which he sent on a trading voyage. He then embarked for London, to await the realisation of his venture. Years went by, and nothing was heard of the ships. Sir John was reduced to poverty, and compelled to take service with a tradesman. One day he heard a gentleman read from a newspaper of an extraordinary event. Three ships richly laden had arrived in London after ten years' absence, long after they had been given up for lost! Sir John hurried to the city, and, of course, found they were his own ships. In his gratitude he vowed that he would build an asylum for decayed merchants, so that none might suffer the hardships he had been reduced to. On the "Great Stone Field" at Blackheath, Sir John erected his College, after the pattern, it is supposed, of Bishop Warren's College for Widows of the Clergy at Bromley. Sir Christopher Wren was the Architect, and Edward Strong, his master-mason, the builder. Morden College to-day is as perfect in structure as when first built. Its fine proportions, the beautiful tint of the red bricks and tiled roofs and the green window shutters, the admirable harmony of the parts and the chasteness of the ornamentation, all combine to make it what it is intended to be, a "haven of rest."

AT Redenhall, which lies a mile east of Harleston, there is an old Church whose Tower took 60 years to build—from 1460 to 1520. This Tower is said to be the finest in Norfolk, but Hoxne, Eye, and some other parishes on the Suffolk side, possess Towers almost if not quite as fine. On the great west door are carvings of a hammer and horseshoe and a shoe and pincers, rebuses, says Blomefield, of Smith and Hammersmith, the probable donors. We think it more likely that the implements commemorate some benefaction of a guild of farriers, or the like, as was suggested by Archdeacon Perowne. At the east end of the North Aisle we come to the Gawdy tortoises which herald the way to the Manor Chapel, in the window of which is a fine series of armorial bearings. The Vestry, entered from the Chancel, has some barred windows which are architecturally interesting, several chests, one with noticeable carvings, and a quaint old plate of the Church dedicated to Bishop Lewis Bagot (1783-1790). Here also are panels of the twelve apostles from the old screen. On the floor of the Chancel was one of the earliest Norfolk brasses, a large figure of William de Newport, rector 1311-1326, and builder of the Chancel. It had a French inscription, given by Blomefield, and was, we believe, destroyed in altering the Church in the earlier part of this century. The brass lectern here is of an exceptional character. It is a two-headed eagle, of great age, and of unascertained meaning.

THE Venus of Milo, the finest relic of Greek Art, is known to everybody, but few have heard of M. Henri Brest, who was the means of securing it for the Louvre. This was as long ago as 1818, yet M. Brest only died the other day, having lived more than a century. Tranquillity, pure air, and simple fare no doubt contributed to his longevity, for M. Brest continued to reside on the island of Milo until his death, remote from all the changes that have troubled the World since 1818. He certainly never saw one of the thousands of casts of the great statue which are to be found in every School of Art and Museum, big and little, in the World, unless, perchance, he had one of his own.

M. JOSEPH THOME, who died a few days ago, was something more than the Cubitt of modern Paris, for the vast building schemes which he realised under the inspiration of Napoleon III. and the guidance of Baron Haussmann, had a political importance as well as an æsthetic result that put them in a different category to the creation of Belgravia. Thome arrived in Paris over sixty years ago as a journeyman plasterer. In Bordeaux he had made acquaintance with Haussmann, who soon recognised in him the vigour and audacity needed for carrying out the Imperial plans. It was in 1855 that he set to work, unhesitatingly buying up whole quarters of the city, opening out boulevards, and lining them with palatial structures. The task in which he himself took the greatest pride was the calling into existence of that magnificent "Quartier de l'Arc de Triomphe," that has no rival in any other capital. Here he laboured on long after the Empire and Baron Haussmann had sunk into dust and ashes, and here he died worth a couple of million sterling, and occupying a sumptuous Mansion in the Avénue d'Iéna. One of his sons carries on the business of contractor.

A NEW plan for draining the Zuyder Zee in Holland is being tried with some success. It will be remembered that on the north-west of this shallow sea there is a broken chain of islands extending in an arc from Texel almost to the mouth of the Elbe. The old plan was to connect these islands by sea-walls, and, having thus shut out the ocean, to drain the Zuyder Zee by means of huge syphons. Naturally the cautious Dutchman has always been terrified by the enormous expense of such an undertaking. The new idea is simplicity itself, namely, not to oppose the tide, but to assist it in the formation of alluvial deposits. For this purpose small rafts, made up of bundles of sticks—fascines would be the military term—and secured by buoys, are let out from the mainland. In the smooth water thus made slime and sand will form deposits round the rafts, and as the deposits accumulate the rafts are to be pushed further and further out till the mainland of Friesland is joined with the islands. The plan is almost childish in its simplicity, but it has been approved by many experts, both Dutch and German.

THE quaint little Church of Staveley-in-Cartmel is following in the wake of the other old Churches of the district, and in a short time much of the interior arrangements will have been swept away. The Church is about 200 years old, and with the exception of being enlarged by the erection of an Aisle 100 years ago it has remained until the present with all the chief characteristics of the little rural eighteenth century Church. The old high, square pews are to be replaced by pews of more modern pattern, the old rubble pillars are to give place to oak uprights, and the roof will be entirely renewed, the interior forming two open roofs, one over the Nave and one over the side Aisle, with an Arcade between. Messrs. Paley and Austin, Lancaster, have charge of the work, which will be commenced as soon as possible. The cost is estimated at £1,000.

IN Dr. E. J. Ball's report to the Department of Science and Art, it is stated the teaching in the Science and Art Classes of the South Western District shows distinct improvement in teaching methods as compared with last year. A large number of the elementary Schools were last year very badly supplied with drawing materials, but the larger portion had since obtained at least those supplies which were most urgently needed. The most important progress that he had to report was a very complete system of Science and Art teaching which had been adopted at Plymouth. At present there was a large Technical School there. This was supported out of the County Borough Technical Grant. The School Board had erected a large higher grade School in the vicinity of the Technical School, and a joint committee of the School Board and municipal authorities had been formed, which will control the teaching at both Schools. A comprehensive scheme of teaching has been adopted, of which the Schools will form part. In the adjoining town of Devonport considerable progress has also been made. Plans for new Municipal Technical Schools had been prepared, and the numbers of individual students attending the classes had increased since last session from under 200 to over 300, and the progress was likely to continue. The large Technical Schools at Bath, too, were nearing completion; and at Cornwall the question of the establishment of a Council School of Agriculture had recently taken definite form. In view of the decadence of the mining industry in Cornwall, the necessity for this School was scarcely open to question, and it might do much to benefit the county. The Mining and Science Schools at Camborne, which were already of an important character, had been very greatly improved during the year by the addition of a new wing, containing large and well-arranged chemical and metallurgical Laboratories.

THE prospectus of the Glasgow School of Art, with local prize scheme, which has undergone considerable revision and improvement has just been issued. The provision made for the advanced work in Life Painting and Design appears to be full and complete, and students receive instruction in life painting at a much earlier period than formerly. Modelling also is included in day and evening classes. Decorative Art is under the care of a special staff of craftsmen, chosen on account of their practical knowledge and skill, and the efforts of the students are directed towards a thorough recognition of the technical needs of the practical art or craft they are studying. The Architectural Department—which section has attained marked success in this year's National Competition as well as in the examinations—issues an inviting programme, the chief item in which is a set of lectures or analyses of Greek Architecture by the director of the Architectural section, Mr. W. J. Anderson. The curriculum for Architect students seems to afford great advantages, as, in addition to the constructional, historical, and other training special to Architects, the resources of the Life and Applied Art Classes of the School are at their disposal.

DURING the excavations of Freiherr Hiller von Gaertringen, on the Greek island of Thera, several sculptures and inscriptions have been found in the Gymnasium; but of particular historical importance is the discovery of a letter written by King Ptolemy Euergetes of Egypt, dated the eighteenth year of his reign (B.C. 229). In this document the King assigns to the mercenaries, comprising the garrison on the island, the revenues of certain specified domains in order that they may be able to defray "the expenses for sacrifices and anointing-oil."

AN arrangement has been come to between the Official Receiver and the County Council, whereby, in consideration of the last-named body giving a sum of £30,000 to the improvement, the Official Receiver undertakes to put back the buildings belonging to the Hotel Cecil 25 ft. By this improvement the width of the Strand in this neighbourhood will be increased from 55 ft. to 80 ft. It may be remembered that the County Council have a scheme for widening the Strand from Charing Cross to Somerset House to this width, and this arrangement is the first step towards the carrying out of the entire scheme. The original intention of the Official Receiver was to place the Hotel buildings only 5 ft. behind the main thoroughfare, but other considerations presented themselves. This improvement has necessitated the purchasing of the entire block of buildings which fronted the entrance, and compensation for the businesses connected therewith. One claim of £60,000 for goodwill is still outstanding, and already the company has paid £200,000 to carry out this vast alteration.

THE collection of rubbings of brasses in the possession of the Society of Antiquaries has, says the "Manchester Guardian," recently been considerably enriched by the gift from Sir Wollaston Franks, the president of the Society, of the fine collection formed by him during the past thirty years, making the series now stored at Burlington House incomparably the finest in existence. The rubbings number many thousands, nearly all of them having been taken from brasses found in England, a few only coming from Flanders, Germany, and elsewhere. The art of engraving monumental brasses seems to have been a form of metalwork almost confined to this country, as comparatively few such brasses are to be met with on the Continent. Sir Wollaston's rich collection of drinking vessels has been deposited on loan in the new Gold Ornament Room at the British Museum. They include a curious set of silver vessels found near Van, in Armenia, a silver bowl found in Lancashire, full of coins of Canute, and several silver bowls, spoons, &c., from Carthage. The extensive collection of Continental china and pottery belonging to the same gentleman will, it is understood, remain for the present on loan at the Bethnal Green Museum.



WITH THE A.A. IN KENT: STROLLING SKETCH BY JOHN BEGG.

SITUATED in Dalhousie Square, Calcutta, next the Hong Kong and Shanghai Bank, the new Standard Life Assurance Buildings are just completed. The buildings were designed by Mr. F. W. Stevens, Architect, of Bombay. The resident clerk of works was Mr. W. G. L. Cotton, and Mr. J. McMinn the general contractor. The works were commenced in February, 1894, so that they have taken something less than two and a half years in completion, a short time comparatively when the magnitude of the buildings and the class of work is considered. The buildings are in two blocks, divided by a *cul-de-sac* lane—Vansittart Row—which is bridged over and surmounted by a fine stone-sculptured pediment, over 30 ft. long by 7 ft. high, in which in the round is a carved representation of the Parable of the Ten Virgins. On the apex above this pediment is a colossal statue of Atlas bearing the World. The extreme height of the building proper is 68 ft., and the Tower at the angle of Wellesley Place and Dalhousie Square 140 ft. The structure consists of three stories. Porebunder stone (a material very much like Bath stone) has been used largely in the construction of the edifice. This stone has long been largely used in the Western Presidency, but it is the first, or almost the first, time it has been employed in Calcutta. The bank premises are paved with marble; the teak counter fittings have brass accessories, the work of Messrs. Weinbridge and Co., of Bombay. The exterior sculpture is by Messrs. Harry Hems and Sons, of Exeter, and the foliage carving by Mr. Rowjee Bhama and his assistants, of Bombay, working from models prepared by Mr. Gomes, of the Bombay School of Art, under the direction of Mr. Stevens, the Architect. The cast-iron work is by Messrs. Burn and Co., of Calcutta.

THE old Clergy House at Alfriston has been handed over by the Ecclesiastical Commissioners to the Council of the National Trust for Places of Historic Interest. The purchase money is the nominal sum of £10 merely, but the Commissioners are now rid of the cost of maintaining the interesting old fabric. It is a very simple and unique building of the fourteenth century, two stories in height, and with a big thatched roof, and the dreadful state of dilapidation in which it is both inside and outside shows how badly the Commissioners have looked after it. It was the humble home of some pre-Reformation clergy, and is probably the only—at least it is the most—complete and perfect of a series of similar homes of the clergy which were scattered over England four or five hundred years ago, and is, therefore, of supreme interest as a relic of the clerical life of those times. The National Trust will put it into order, and have almost raised enough for its restoration.

FEW of the thousands who annually visit the British Museum have any idea of the working or extent of the administrative machinery which is kept going from year to year in order that the collections stored therein may be maintained at their present pre-eminence and added to continually, and that the Museum may not be outstripped by its Continental rivals. Numerically the establishment, excluding the natural history branch, consists of 17 staff officers, 75 assistants and clerks, 128 attendants, and 135 mechanics, masons, electrotypists, firemen, commissionaires, labourers, &c. Although this may seem a large staff, it is inadequate to cope satisfactorily with the immense mass of material that accumulates steadily in the several departments. In the course of last year 34,337 volumes and pamphlets and 70,394 parts of volumes of works in progress were added to the Library, while these figures do not include 926 maps, in 5,795 sheets, and 4,793 pieces of music, each complete in itself, which were acquired during the same period. In the way of books the most remarkable acquisition recently made has been the highly important one of no fewer than 1,014 editions and translations of the "Imitation of Christ," ascribed to Thomas à Kempis, including all those in the celebrated collection of the late Mr. Edmund Waterton, of Walton Hall, Yorkshire. In early English books the most important acquisition is one of the highest interest, being the only known copy of the first edition of a book by Bunyan, "Christian Behaviour; or, The Fruits of True Christianity," printed in London in 1663. This is the third of those of Bunyan's books which were composed in prison, and its existence was unknown until this copy was discovered some years ago in a chest of old books at Cranbrook, in Kent.

THE War Office authorities are about to invite tenders for the construction of an extensive range of buildings at the Plymouth Citadel, to be known as the Men's Married Quarters. This work, which may be regarded as the second stage of the scheme for converting the Citadel into an Artillery Depot, will be commenced at once, and will occupy about eighteen months. The whole block will have a frontage of 800 ft., and the total cost is estimated at about £30,000. It is also proposed to demolish the existing Officers' Mess, and to utilise the site for the erection of additional Men's Quarters, and when the entire scheme is completed the Citadel will, without doubt, contain the finest military buildings in the Western District. The total cost of the whole scheme will not be less than £100,000. The first battalion Welsh Regiment, now quartered in the Citadel, will be transferred to Crownhill Fort Barracks while the work is in hand.

FROM Paris we learn that a destructive fire occurred last week at the Industrial Exhibition of Montpellier. The book department was in a few minutes burnt to embers. It contained a Gallery of rare pictures of men and scenes connected with Montpellier, throughout the history of that old and famous University city. They were lent to the Exhibition by the Municipal Council and private citizens. In the same department was a series of the most interesting documents belonging to the archives of the City and the University. Amongst them are an original plan of the Citadel built by Richelieu, the bull of Pope Urban V. instituting the University of Montpellier in the fourteenth century, a Chinese book printed on silk, documents relating to the Paris Bastille, also the seals of the town, and pictures and parchments. This is an irreparable disaster that will be felt not only at Montpellier, but among the sister Universities of Europe and America. Almost the only thing left of the Exhibition is the Fine Arts Building.

THE Royal Academy has just held its preliminary examination of Art students, candidates for the three years' free education in the best School in England, and taught by the Royal Academicians. The report is not yet complete, for each candidate when the Schools open must do a drawing under supervision to show that his competitive work was entirely his own. It is stated that the young men who offered themselves were much below the standard, and that only a very few will be allowed to enter for the second chance. The girls drawings were the best offered, and show a considerable amount of culture and study. The women's passes were half as many again as those of the men's.

MR. JOHN WILLIAM GRAY, late engineer of the Birmingham Waterworks, died recently at Leamington. When he left school he was articled to Mr. Murray, engineer, who was then engaged in carrying out improvements on the River Wear Harbour. At the end of four years he went to London and obtained an engagement under the New River Company. He subsequently became attached to the East London Waterworks Company, and played a prominent part in many important engineering undertakings. He went to Birmingham in 1865, and obtained the post of engineer to the Birmingham Waterworks Company, and his services were retained when the undertaking was acquired by the Corporation. He made all the preliminary surveys for the scheme for acquiring a water supply for Birmingham from the rivers of Elan and Claerwen, in Radnorshire, a distance of 70 miles, and was to have taken charge of a section of the work; but his health failed, and in the autumn of 1894 he tendered his resignation. This was accepted, and the City Council granted him a retiring pension of £600 a year, his services being available as consulting engineer.

AT CASTLEREA the new Church of St. Patrick was dedicated last week. The edifice is in a suitable position within the town, and occupies an elevated site, fronting St. Patrick Street, and is in the Pointed style of Architecture. The building is cruciform and is divided into Nave, Aisles and Transepts. The Chancel has a traceried five-light window, and a similar window pierces the front gable over the principal entrance. The height of the building to the roof ridge is 65 ft., and its measurements are 160 ft. in length and 61 ft. wide across the Transepts. The walls are of faced ashlar with limestone dressings. The Tower is a campanile, standing at the northern end of the western or principal entrance. It is a square structure and rises to a height of 140 ft. The principal entrance is highly ornate. The Transept gables are flanked by turrets and contain entrance porches. An arcade of six Pointed arches, supported on seven octagonal columns, separates the Aisles from the Nave. The Transept arches are 40 feet high, with a span of 34 feet each. The roof is open work pitch pine. The building is floored with timber with tiled passages and is seated throughout in pitch pine. The High Altar is sculptured and is of Caen stone and coloured marbles, the Altar-piece being in three panels representing the Annunciation. The Altar table is supported on four Connemara marble columns, with richly-carved capitals. The reredos contains a representation of the scene at Calvary, and is flanked by niches containing statues of St. Peter and St. Paul. The side Altars are in the same style as the High Altar, and are dedicated the one to the Sacred Heart and the other to the Blessed Virgin. The cost of the building exceeds £13,000, of which £9,500 was for the structure itself and the remainder for the internal fittings and decorations. The Church, which was designed by the late Bishop of Sligo, in conjunction with the clerk of works, Mr. John Scannell, was built under the supervision of the latter by Mr. John Clarence, of Ballisodare. It will accommodate 1,500 worshippers.

Two pictures have been damaged in the National Portrait Gallery. They are now in the hands of the repairers, and the damage is happily not irremediable. The eyes of Sir Peter Lely's great painting of the Earl of Sandwich are said to have been deliberately scratched with a pin, and the other picture was a painting of Sir William Hamilton by Jervas, and the injury consisted in several long scratches on the robes near the bottom of the picture. Mr. Cust, the Director, in an interview, stated that "the need of additional curators is apparent when you consider that there are only ten men and a policeman to guard 33 rooms, but that matter is in the hands of the Treasury. I think that glazing would settle the matter. If the pictures were covered with glass no one could cause any wanton damage without attracting the attention of the assistants. I am aware that many galleries are provided with railings, but our rooms are unfortunately too small to admit of that precaution. It is a curious thing that the bigger the crowd the less trouble we fear. On Bank Holiday we admitted 2,000 persons without a single complaint from the curators. In crowds people watch one another; but when isolated individuals are wandering through the rooms it is difficult to keep an eye on all."

AN autumn Exhibition of Pictures by the members of the Dublin Sketching Club is now open to the public at No. 9, Merrion Row, Dublin. The Exhibition will remain open during the rest of this month and the whole of September. There are one hundred and seven paintings and sketches in oil and water colours. The unassuming title of the club might mislead people into the supposition that the contents of the room were productions of a more or less hasty character; but the fact is that the majority of the sketches are well finished artistic work. Indeed, one of the pictures, a sea piece by Mr. Alexander Williams, is over four feet long. There is nothing of a very high order in the Exhibition; but on the other hand, many of the pictures are the work of very skilled hands, and possess a goodly amount of merit.

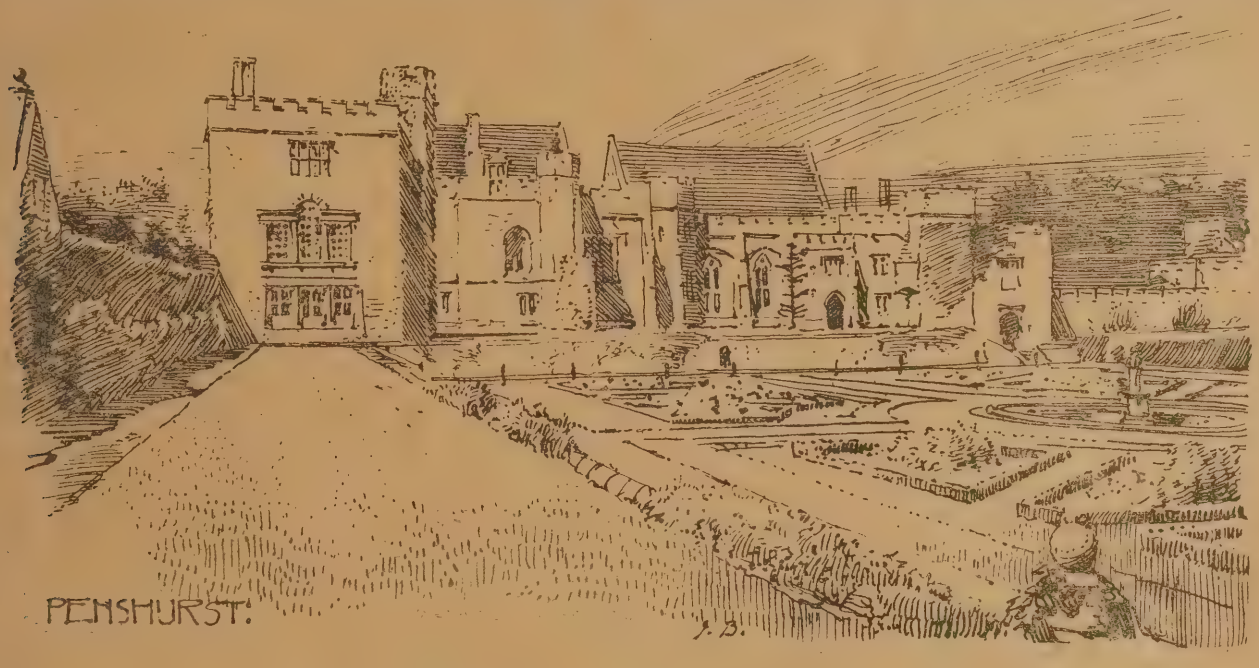
A CAREFULLY written and highly interesting account of Tilty Abbey, appears in the "Essex Review," by Mr. Herbert W. Gibson, of Ongar, who, speaking of the bare walls now constituting all that is left of that old Monastery, laments the peculiar ill-luck of Essex with its archæological remains. "What were once Norman strongholds or religious houses," he says, "are now little more than piles of stones—time has already worked sad havoc, and in another century even the sites of these buildings may hardly be identified." "It is said," Mr. Gibson continues, "to be a most unlucky thing to remove any materials from Tilty Abbey, but the small thefts since the buildings first began to decay must have been continual. According to the local tradition, an underground passage leads from the Abbey to Horeham Hall, some two or three miles away. The entrance, at any rate from the Tilty end, has yet to be found."

SIR R. MURDOCH SMITH, Director of the Edinburgh Museum of Science and Art, states that during the past year the various departments of the Museum have been steadily developed, and the collections enriched by the addition of important specimens, both by purchase and gift. In the department of Scottish geology and mineralogy the work of arranging and labelling the Scottish mineral collection, under the direction of Professor Heddle, has been steadily carried on and is now approaching completion. The most important purchase made in the course of the year was that of a portion (70 specimens) of the Peyre collection of mediæval wood carving and iron work acquired by the Science and Art Department. By the bequest of the late Dr. Hugh Cleghorn, of Stravithie, Fife, formerly Chief Conservator of Forests in India, 907 volumes (besides pamphlets) relating to forestry have been added to the Library. There were also added to the Library by donation and purchase 332 volumes, besides pamphlets. Dr. Ramsay H. Traquair, keeper of the Natural History Collections, in his annual report, states that the chief purchase for the year has been a stuffed specimen of the great auk *(Alca impennis)*. This specimen, in full summer plumage, is one of the finest known, and completes the series of relics of this extinct bird contained in the Edinburgh Museum.

MEMORIAL Stones of a new Welsh Congregational Church in Bank Street, Ponkey, were recently laid. The Chapel is being built of red Ruabon facing bricks and terra cotta, part of the façade being of Cefn freestone. The size of the Chapel will be about forty-eight feet by thirty-six feet, and the Vestry twenty feet by fifteen feet. There will also be a Boiler Room, measuring twelve feet by ten feet. The woodwork will be of pitch-pine. The Chapel will have seating accommodation for about 230, and the estimated cost is £1,045. The Architect is Mr. Gummow, Wrexham, and the builder, Mr. John Davies, Ruabon.

SHEFFIELD, according to some people, is a dirty place where they make knives and forks. The artistic view is not very different. Referring to the recent Arts and Crafts Exhibition, the "Studio" says: "Even during the wildest flights of imagination it would be impossible to write down Sheffield as a city devoted to Art, but to assert that it is void of such an element would be adding blackness to the night and rendering auxiliary aid to those manufacturers who vie with each other in their endeavour to make their city one of eternal darkness. To outward appearance all that was beautiful has foundered in a sea of manufacturing requirements, and all the instruments of production would appear to pour forth their poisonous fumes with a hissing determination to blot the heart out of Nature itself. This is what the stranger must feel on entering Sheffield, and such is the vision carried away to the quarters of the earth and upon which the reputation of the city—as a city—has been built. Certainly the mind which has not sojourned sufficiently long to find how much of beauty is left, may be forgiven for spreading so erroneous a view; but, deep down in the heart of man, there is still the old hereditary love of beauty, of excellence in workmanship and pride in production, which has, and ever will, place them in the foremost rank as Art craftsmen." The meaning of this is a trifle complex, and we do not profess to know to whom the "them" in the last sentence refers. We hope it means Sheffielders. But why will people persist in regarding as a city of eternal night one of the most beautifully-situated towns in England? It is small wonder if Sheffielders retain a love of the beautiful, considering the unequalled opportunities they possess of studying it on every side.

IN reference to the additional accommodation at Liskeard Workhouse, Mr. Gordon Smith, the Architect, reporting to the Local Government Board on the matter, stated that the scheme would need some considerable modification before it could be said to be satisfactory. It was proposed to erect what in effect would be one half (for women) of a new Infirmary and to still keep the present Infirmary for both sexes. This might be feasible as a tentative arrangement, but the new building should be so placed on the garden land when acquired by the Guardians that it could be completed as an adequate Infirmary for both sexes at a later date. In the sketch plans submitted this would hardly be practicable, since the land in question did not extend throughout the whole width of the present Workhouse premises. It would be necessary to move the centre of the future Infirmary more to the south, unless the Guardians were to purchase the land to the west of the Infectious Hospital, as well as the present garden ground rented by the Guardians. If the Guardians would consent to this fundamental alteration, the details of the proposed new building could be easily arranged; indeed, it would be preferable if the Guardians' Architect were to design a complete new Infirmary, of which it might be understood that only one half was to be proceeded with at once. The Guardians should bear in mind that although the Union was undergoing a shrinkage of population, the Infirmaries and Workhouses are generally being more and more made use of by the sick poor, and hence they are being enlarged, rebuilt or otherwise altered in very many Unions, in order to meet the demand made upon that class of Workhouse accommodation. If this suggested modification were adopted, it would be desirable to make the new Wards 24 ft. wide instead of only 20 ft., and the fireplaces (stoves) put in the middle instead of in the side walls, where they occupied valuable bed space; that the Day Room should have means of thorough ventilation; that some accommodation for nurses when off duty be provided away from the Wards (in a second story, perhaps); and that properly fitted up Duty Rooms be provided near the Wards. The matter has been referred back to the Building Committee for its consideration.



WITH THE A.A. IN KENT: STROLLING SKETCH BY JOHN BEGG.

IT is sa'd to be the heart's desire of nearly every literary man and artist, who dreams of building himself a house, to have a Tower for his sanctum. Lady Butler has been able to find a Tower ready made for her purpose—Constable's Tower, Dover. It is a good height above the smoke and fog. A Gallery has been fitted up for her as a studio, and she is busily at work there upon a large new military subject, which may be completed in time to make a sensation at next year's Academy, and to disprove the random assertion Mr. Goschen once made—that the red coat did not lend itself to Art.

THERE has just died at a bathing-place near Christiana the aged sculptor Christopher Borch, who began life as a carpenter, but afterwards studied plaster art in Germany and Paris, and later in Copenhagen. He obtained a stipendium to go to Rome, and finally settled in Christiana. His best known works are the bas-reliefs from the Frithiof legend in Castle Oscarthal, near Christiana, the decorations in the Hall of the University, the "Egg-girl" in the Stockholm Castle, the "Archer" and the "David," belonging to Baron Rothschild in London.

SPANISH ART OF THE SEVENTEENTH CENTURY.

VELASQUEZ AND HIS SUCCESSORS.

THE early style of Velasquez, said Mr. R. E. Fry, B.A., in a recent lecture, marked a new epoch in the history of Art, and formed a connecting link between ancient and modern Art. Velasquez was regarded by artists as permanently modern among the old masters, as the one old master from whom they could learn without in any way sacrificing their spontaneity. Portraiture was an Art which tended to be distorted by the exigencies of the sitter and the recording of fact. The ancient artists constructed their pictures from within, realising in an outward form an internal vision. They could see that there might be two very different attitudes towards a picture in the painter's mind. In the one case, he wanted actually to make a beautiful and delightful thing, just as one might wish to work a beautiful piece of jewellery, and the thing was not only to be beautiful in itself, but it was to carry with it all sorts of beautiful associations; and in that case the artist would bring together in unreal profusion representations of objects that in real life moved one by their beauty, stirred the mind, or interested deeply. In the other case, the artist was passive and receptive and waited until objects were represented to him in a beautiful manner. What he wished to try and show was that Velasquez was one of the first great artists who adopted this latter method. The World, as the ordinary man saw it, was arranged accidentally without regard to fitness. No one, he thought, would be rash enough to maintain that he ever found in Nature that complete subordination to one central idea which was the

ESSENCE OF A WORK OF ART.

Both the ancient and modern artists attempted to harmonise the external world with that internal demand for fitness and purpose. He thought they might regard a work of art as an attempt to harmonise a certain internal demand with the appearance of external nature; to put it shortly, Art was the harmony of the desirable with the actual. The desirable could not impose upon men until it was clothed with actuality; the desirable was the actual made beauty. The modern artist lay in wait to catch Nature in her propitious moods. The indispensable quality of the ancient artist was his invention, his power of conceiving a combination which had never, and perhaps, could never arise in external nature. On the other hand, the necessary quality of the modern artist was not his invention, but the alertness of his perception, his promptitude to seize the significant moment. The Spaniards had learnt this perception in a high degree, while they almost entirely lacked invention. The constructive artist starting with his desirable world was in danger of never giving it sufficient reality to convince the beholder of its possible existence. The one native quality of Spanish Art in the days of Velasquez, in the earlier half of the seventeenth century, was its Zola-like realism. One reason of Velasquez's greatness was his conception that beauty was to be discovered rather than created. In middle life Velasquez attained to that extreme

FREEDOM AND LOOSENESS OF TOUCH

which had distinguished him among painters. This quality of looseness, which was so much admired now by artists that it was aimed at by a conscious effort, was, he thought, in the case of Velasquez rather an inevitable outcome of his firm grasp of the idea of the picture. The real charm in this looseness was its utter unconsciousness. In his later works they saw underlying this a consciousness of structure and purpose which indicated the ease of a complete mastery, and not the uneasy grace of an effected manner. On the whole the development of Velasquez's technique was towards greater simplicity, and in this it corresponded with his gradual change of aim from the second to the third or final style. He was coming back again to his earlier attitude towards Nature, attempting again to depict her as beautiful, instead of deliberately forcing her into well-recognised schemes of beauty.

THIS REVOLUTION

of Velasquez from the old ideas of formal beauty was as complete as Wordsworth's revolt in the last century from poetic propriety. Velasquez could not have achieved triumphs over the ugly in Nature in the technique of his earlier manner. Velasquez painted a whole series of fools, dwarfs and idiots. The impressionist, as contrasted with other forms of Art, depended chiefly on two things: first, the acceptance of the appearance of objects frankly without altering or modifying that appearance, and, secondly, unity of focus. One of the great charms of the final method of Velasquez was in the greater sense of life, and this was a great compensation for the loss of formal beauty. Only by such an impressionist treatment could an artist express the momentariness of the vision, the feeling that after another second all would have changed and gone, and they must enjoy it while it lasted. Velasquez lived intensely in his time, his perception was limited to the actual, and so Velasquez had painted Spain so perfectly that it might almost be said it was superfluous to read Spanish history. He accepted the world of everyday life with its limitations, and gave æsthetic pleasure by distilling beauty out of the actual instead of making actual the beautiful idea.

[Extracts from a lecture before the University Extension Students, Cambridge.]

OVER-BUILT.

THE RESULT OF SPECULATIVE BUILDING.

IN Swansea the speculative builder is not having a very happy time. The town has been over-built and numbers of houses are empty in all parts of the town, and their prospects of tenancy are, to say the least, remote. The result of all this is, that the value of house property is depreciating. Rents are coming down and, possibly, the proportion of rates per pound may rise. This condition of things has been attributed to the large amount of capital that has, during the past few years, been available for building purposes. The opening up of the Town Hill and the Rhyddings estates created a large field for building enterprise; but the enterprise was far more than the immediate commercial prospects of the town justified. The employed became employers, and, if they were not sound, practical men, they often landed the lawyers who advanced the money in little pecuniary losses which greater care might have obviated. It was the custom until recently—and with a few lawyers it is still the custom—to advance money when the building had reached certain stages; the joists, the roof, first coat of plaster, &c. This system was undoubtedly one in which the man without capital—and as often as not this was the speculative builder—was given a loophole to the attainment of wealth through mortgaged avenues. The security to the lawyer was not, at the same time, so good. The builder, once started, found it impossible to stop without going to the wall. The first house had to be completed with money advanced on the second, and so on. The speculative builders increased in numbers. In short, building speculation became a craze, and the town was over-built. And the peculiar part of it is that solicitors, who were advancing this money in the stages referred to, did not seem to appreciate the danger until it had really forced itself upon them. They discovered that the property they already held would not realise much more than its value—if it realised that. However, they seem at last to have awakened to the exigencies of the situation, and there is a movement on their part to restrict advances of money by stipulating that the roof shall be placed before the first advance. Now, as a restriction, this is very effective, for no one but a builder can conceive the difficulty of "getting under cover" in such circumstances. But it undoubtedly entails hardship upon those honest builders who, having started with sufficient capital, have it all invested in property which, in the state of the market, will not realise the original outlay upon it.

THE ROMANS IN BRITAIN.

UNDER this title, Mr. H. E. Malden, M.A., gave a lecture at Cambridge before the University Extension Students. He said they had to consider Roman influence in Britain and the Roman political influence in Europe. Roman influence in England was the remains of an intermittent influence. Roman influence on the Continent of Europe, or in many parts of the Continent of Europe, had not been intermittent at all, but had been continuous from the first time that it began to be applied down almost to the present day. Cæsar's demonstration was probably intended to link the two shores more closely together. The pacification of Gaul by Cæsar would naturally tend to increase trade on the channel coasts. When the Emperor Claudius came it was clear that half the work was done already by the hands of civilisation. They no longer got the violent resistance as was shown in the time of Julius Cæsar. The people were half conquered by the merchants before the soldiers came. The people recognised that they could not sell what they wanted to dispose of without the co-operation of merchants on the opposite side, and they were not prepared to risk growing prosperity upon a desperate stand for political independence. There was very little doubt that the Roman occupation of Britain was a muddled matter. He did not say it was a mistake altogether; the Romans had their reasons for what they did, but it was not well managed. The Romans made a mistake by having no scientific frontier; they should have occupied the coast until they got what they wanted. The Romans tried to make a very unscientific frontier by building walls. The distribution of the Roman forces at an early period showed how dangerous the unconquered Britons were in the minds of the commanders. Yet although the islands were not completely conquered, and although there were many independent natives, the fabric of civilisation seemed to be very well established on the Roman side. He did not suppose London existed when Julius Cæsar made his armed demonstration in Britain because he mentioned nothing of it. London was not the capital of the Roman Britain, and although it came rapidly to the front, it was not so important as it was afterwards. With regard to some of the great cross roads in Britain it was pretty clear they were ancient British roads. They must remember that the physical environments were the same then as now. The climate, he supposed, was rather more severe than now but still the general environment was much the same. They faced it in a more civilised way than our ancestors did in the last century. The Romans did not heat their houses with big fires, the greater part of the heat of which went up the chimneys. Upwards of a hundred Roman houses in Britain had been explored, and all of them were warmed by hot air. Open fireplaces had been found in certain outlying rooms, but the living rooms were always warmed by hot air. Burials always took place outside their towns. In very many of the present arts the Romans must have been far superior to the ordinary Englishman of one hundred years ago. The remains of their villas showed taste in ornamentation, which was considerably beyond the taste to be found in an ordinary Englishman's country house at the present day. Yet this civilisation, as he said, perhaps had a somewhat slighter hold on Britain than it had in some parts of the Roman world. The mere fact that it broke down would help to show that. The Celtic language in Gaul appeared to have been killed by the Church, and ecclesiastical Latin seemed to have been the reason why the Celtic language in Gaul came to an end. Long before the Romans abandoned the government of Britain, Christianity was the established religion of the Roman empire, but no stone inscriptions of a Christian character had been found in Britain. That indicated that the religion of the empire had a very slight hold, and if the religion of the empire had a very slight hold, the system of the empire had not so strong a hold as it should have had. Mr. Malden spoke of the severe taxation on the middle and lower classes, which ultimately broke up the power of the Roman empire.

Correspondence.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—When your article on me appeared on the 12th instant I was only able to glance at it, but I read it through afterwards while I was out of town. The paragraph about Lord Leighton, on page 5, does not convey what I meant when I was interviewed. In listening to a long and desultory disquisition on many subjects it is not easy to seize on the exact word used, while the speaker knowing what he means, may express his views so imperfectly that the whole drift of some of his remarks may be misunderstood, besides it must not be forgotten that the disquisition has to be greatly abridged to make it readable. I was pointing out the fastidiousness of Lord Leighton in perfecting his linear compositions, a fastidiousness he shared with G. Mason, Mr. Watts, and perhaps with Walker, and which is greatly valued by foreign artists, and I added, "this, however, is not the English view." In speaking of the brilliance and accomplishments of Lord Leighton, I certainly never had the smallest notion of depreciating my countryman, nor did I use the word "un-English."—Yours, &c.,

GEORGE AITCHISON.

OUR LITHOGRAPHIC PLATES.

THE MORTON HALL, NEWMILNS.

THIS building, which has a frontage of 120 ft. with a depth of 70 ft., will consist of a large Hall, 73 ft. by 43 ft., which, together with a small Gallery at one end, will provide seat accommodation for about 900 people; a commodious Commissioners' Room, with separate Entrance, Retiring Room, &c. The building, as will be seen, is planned lengthways to the street. At one end of the Hall are two Entrance Porches, one being the main entrance from the street and the other at the rear, which also contains stone staircase leading to the Gallery. At the further end of the Hall is a platform large enough to hold about 30 people, with a flight of steps on each side, and convenient doors communicating with the corridor and Retiring Rooms behind the platform. The large Hall is divided by strong buttresses into six bays, each having a stone mullioned window. Two bays in the front are carried up above the eaves with a six-light mullioned window in each and surmounted with gables. The floor of the Hall will be 4 ft. above the street level, and the height is reached by a broad flight of stone steps arranged in the Porch. The building will be set back 14 ft. from the road, with a dwarf wall in front. Along the front runs a deep plinth of rock-faced rubble-work finished with a bold, polished splayed course; above this the masonry will be hammer-dressed, with polished mullions, quoins, and dressings. The roof is to be slated with green slates, contrasting admirably with the red Ballochmyle stone which is to be used throughout. The roof will be surmounted by by a well designed Turret, which, besides acting as a ventilator, successfully breaks the long roof line, and makes an important feature in the grouping. The Main Entrance Porch will be bold and imposing, and somewhat more ornate than the rest of the building. The design is of a free Renaissance style. The interior of the Hall will be lofty, and there will be three entrances, the lobbies of which will be provided with double swing doors. The roof is to be of open timber work, all timbers being exposed and wrought, and the ceiling match-boarded up to the apex. The wide span of the roof necessitates the use of heavy timbers, and the massive woodwork of the roof principals or principal rafters will be conspicuous. At one end of the Hall will be a platform raised above the floor a height of four feet with panelled front and canted corners. At the other end of the Hall will be a Gallery carried across the whole width, having six rows of seats capable of accommodating 150 people. The front of the Gallery will be panelled and divided by pilasters, and richly moulded. The scheme for the heating and ventilating has been carefully considered, and the work of the heating has been entrusted to Messrs. Mackenzie and Moncur, of Edinburgh. The Architect is Mr. Arthur Harrison, of Birmingham, and the building contract is in the hands of Messrs. Matthew Muir and Co., of Kilmarnock.

NEW PREMISES FOR NEWBURY'S LIMITED, BIRMINGHAM.

These buildings have a frontage to the Minories, the Old Square, and the Upper Priory, extending to about 300 feet. They consist of a block of Warehouses, five stories in height. In the basement are Bedstead Warehouses, Packing Rooms, &c.; on the ground floor, General Warehouses; and on the first floor, Show Rooms, Offices, &c.; the second floor is divided into Stock Rooms; on the third floor is the factory, which is approached from the Priory by a fire-proof staircase. Each upper floor is recessed for light to that under. The façade is entirely of terra cotta, relieved with colour and glazed ware. The domes are constructed of granolithic concrete, with glazed ware tiles on top of same. The total cost when fitted will be about £30,000. The Architects are Messrs. Essex, Nicol, and Goodman, of Birmingham.

A NEW TELEPHONE INVENTION.

IN telephony, as at present practised, the amount of space required for the various stations and exchanges, the large staff of attendants that must be employed to carry on the work of these exchanges with efficiency, and the complication of the electrical arrangements necessary to cope with a numerous body of subscribers, constitute a serious practical hindrance. The capacity of a single exchange on the system now worked may be said to be limited to hundreds of subscribers, while one central station capable of dealing directly with 10,000 subscribers and putting any one of them into communication with any other would be all but a physical impossibility, owing to the huge number of contacts and connections, to be numbered perhaps in hundreds of millions, which would be required for its conduct. The Apostoloff Automatic Telephone is a device by which it is claimed that a station of such size is rendered perfectly feasible, because the number of contacts and connections just referred to is so far reduced as to be within workable limits. The requisite connections are no longer to be reckoned in a multiple of the square of the number of telephones connected to the station, but in a multiple of the square root of that number. This result is attained by an ingenious method of grouping at the central station the positive and negative members of each subscriber's circuit, so that each contact, instead of being appropriated to one particular subscriber, is common to a group of, say, one hundred. In the following explanation it will be supposed for the sake of simplicity that the station has only twenty-five telephones working in it, but the principle is precisely the same whether there are twenty-five or 10,000. The twenty-five subscribers are divided into five groups of five. The positive wires from the circuits of the five subscribers that make up each group are connected together electrically, and the resulting five wires brought to a row of five contacts. The negative wires are also connected in fives, but are grouped differently. The first terminals of each group of five are connected by one wire, the second terminals by another, and so on, the five wires being carried to another row of five contacts. It will be seen that by suitably arranging the connection between these two rows of contacts, the circuit of any one of the twenty-five subscribers can be closed, as desired. For instance, if No. 18 were required, a wire connecting the fourth of the positive row of contacts with the third of the negative row would give the desired result, and would not close the circuit of any other subscribers. In the same way 10,000 subscribers would be arranged in 100 groups of 100 each, and if, for example, subscriber 1,795 were wanted, the terminal of the 17th group of the 100 would be connected with the negative terminal representing the 95th member of each group. Thus by the use of 200 terminals any number could with certainty be selected out of 10,000. The co-operation of the two subscribers concerned, and of them only, is necessary to establish communication, and when once that is effected it is impossible for a third subscriber to interfere in any way without the sanction of the two who are speaking. Absolute secrecy is therefore assured.

SUPPOSED TO BE NELL GWYNNE.

IN Birmingham, an interesting discovery has been made by Dr. Boddy, of a picture which there is some reason to believe is a genuine portrait of Nell Gwynne, by Sir Peter Lely. Some seven or eight years ago, while attending a patient in a small tenement in Willis Street, Dr. Boddy noticed on the wall of the living room a tattered and torn picture of the head and bust of a woman. The frame was worm-eaten with age, broken and battered, black with dust and dirt, which completely covered the gold lines originally ornamenting the ebony border, and the canvas, scarcely in any better state of preservation, was very dirty and torn, and several holes testified to the rough usage to which it had been subjected. Still, the picture seemed to be good, in spite of the defects, and Dr. Boddy purchased it for a small amount. He then took it home, and determined that it should be cleaned and restored, and placed in his permanent collection. Time went on, however, and the picture was almost forgotten. The old worm-eaten frame became destroyed or lost, and another was substituted. At length, some months ago, the picture was sent to be cleaned. Mr. Bailey, who was commissioned to undertake the task, at once saw that the painting was more valuable than at first it appeared to be. The work of restoration was somewhat difficult, but it has been successfully accomplished, and now the picture is, to all intents and purposes, as good as when it was painted. There was nothing on the canvas to indicate the name of the painter or the name of the person whose portrait is painted, but circumstances point to its being a genuine portrait of Nell Gwynne, by Sir Peter Lely, or an extremely clever imitation. If genuine, it must have been painted somewhere about the year 1670. Nell Gwynne, the beautiful, merry, light-hearted girl, who rose from the position of an orange-girl in a Theatre to that of an actress, eventually captivated Charles II., and became the mother of a duke and the grandmother of a bishop. During the time she reigned as one of the Court beauties, Sir Peter Lely painted her portrait several times. Cunningham in his "Story of Nell Gwynne," says, "Few heads of her time make a more profitable traffic among dealers. Yet very few are genuine." Criticising Lely as an artist, Pilkington, in his "Dictionary of Painters," says that his pencil was light and free, his colouring lively, the airs of his heads and figures amiable and graceful, the attitudes easy, natural, and well chosen, and of inexhaustible variety." Then he adds, "His draperies have such an agreeable negligence, with broad folds, that his works in that respect, as well as in other peculiarities, are easily distinguishable from all other artists, and they have proved models for imitation. He had, however, a peculiar expression in the eyes of his female figures, a tender languishment, a look of blended sweetness and drowsiness unattempted before his time by any master." In many respects Dr. Boddy's picture fulfils all these conditions, and leads to the belief that the painting is a genuine Lely. The size of the picture is 30 in. by 25 in., and the portrait is in a medallion-designed background.

MR. BALFOUR has consented to lay the memorial stone of the new cottage homes and schools which are being erected near Wilmslow by the Chorlton Guardians at a cost of £60,000.

IT is expected that the new Sewage Works at Darwen will be completed within six months, and it is satisfactory to learn that it is anticipated the original estimate of £35,000 will not be approached by several thousands.

THE Colne Corporation has decided to construct a new Compensation Reservoir, three miles distant from Colne, where there is an ample supply. The cost will entail an outlay of £40,000. Mr. C. Hill, C.E., Manchester, has been appointed engineer.

Professional Items.

UDDINGSTON.—Operations in connection with the erection of the new Public Halls have now begun near the Caledonian Railway Station. The plans, which are by Mr. Alexander Cullen, Architect, Motherwell and Hamilton, show an attractive group. The cost of the building has been set down roughly at £3,000.

BUXTON.—The Foundation Stone of a permanent Church, for the Catholic Apostolic body, was recently laid. The new building is the design of Mr. Brigden, Architect, of Buxton. It is Gothic, with a semicircular Chancel of considerable dimensions. The cost of the building will be about £1,400. The contractor is Mr. Ash, of Fairfield.

GOLBORNE.—The new Catholic School building is to be 34 ft. 6 in. by 24 ft. 6 in., and includes a spacious Cloak Room, and will accommodate about 100. It is to cost about £500; Mr. James Wakefield is the builder, and Messrs. Sinnoth and Powell, of Liverpool, are the Architects. The Foundation Stone was laid last week.

BULWELL.—St. John's Church has just undergone thorough renovation, at an approximate cost of £220. The whole of the interior has been painted and decorated, the Chancel by Mr. G. F. Gascoigne, of Shakespeare Street, Nottingham, and the Nave by Mr. Curtis Wilmot, of Bulwell, both contractors having carried out their respective work in a creditable manner.

RHONDDA.—Mr. Gordon Smith, Architect to the Local Government Board, recently visited the site of the proposed new Workhouse for the Rhondda Valley, which is to be erected on the hillside near Penrhys, and it is stated that Mr. Gordon Smith approved of the place for such an institution, and suggested that the Guardians should purchase more than twenty acres of land in order to provide for several generations to come.

BIRMINGHAM.—At the meeting of the King's Norton Rural District Council, last week, Mr. R. Godfrey, the surveyor, tendered his resignation, which was accepted. It will be remembered that at Birmingham Assizes the authorities had heavy damages recovered against them in connection with a case of sewer gas poisoning, also for fouling a private pool with sewage. Mr. Justice Wills severely condemned the conduct of Mr. Godfrey in the first case, in which £2,500 was recovered.

UDDINGSTON.—At a meeting of Bothwell School Board the Committee reported on the plans of the new School, which the Board decided to erect at Uddingston, and stated that, having reduced the estimated cost by £1,063, the total cost is now estimated at £10,473, and the accommodation being for 1,104, the amount per scholar is £9 3s., exclusive of the janitor's house. Estimates for the work were accepted conditionally on the sanction of the Education Department being obtained.

ABERYSTWYTH.—The inartistic portion of the College known as the old Castle House, is now being taken down, and the site is to be filled with a structure which will be in keeping with the rest of the edifice. The design has been prepared by Mr. Ferguson, of Carlisle, who was associated with the erection of the Ladies' Hotel on Victoria Terrace, and the local Architect is Mr. T. Morgan, Baker Street. The builders are Messrs. Wilcocks, Wolverhampton, and the work will take about twelve months to complete.

MAYFIELD.—The Foundation Stone of a new School attached to the Convent, The Old Palace, Mayfield, was recently laid by the Bishop of Southwark. The School is designed to harmonise with its surroundings, and will accommodate over one hundred boarders. It will be connected with the old building by picturesque bridges. The Architects are Messrs. Pugin and Pugin, of London. The cost of building will be about £12,000. Messrs. L. H. and R. Roberts, of Islington, are the contractors.

MORECAMBE.—It has been decided to extend the Sea Wall and Promenade to Bare, at the corner of Bare Lane, and, providing Government sanction is obtained, it has been resolved to advertise for tenders. The Promenade will then reach from the Battery Inn to Bare, fully three miles, and will form one of the finest marine walks round the British Coast. A monster Hotel is to be built on the Calton Gardens estate, to contain 100 rooms and cost £30,000. A Pavilion is to be erected upon the old Pier.

ST. IVES.—New Waterworks were formally opened last week. A large Reservoir has been erected on Hellesveor Moors, and the water is being pumped from St. Ives Consols Mine by a Merryweather 7-horse power Otto Gas Engine, driven by a friction clutch, the consumption of gas being less than 300 ft. per hour. The water is pumped into the tank at the rate of 6,000 gallons per hour. The Reservoir, built under the superintendence of the borough surveyor (Mr. John Grenfell) is 70 ft. long, 30 ft. wide and 12 ft. deep, and will hold 157,000 gallons.

DUBLIN.—After rebuilding in consequence of the late disastrous fire, the premises of Messrs. Carson Brothers, 7, Grafton Street, have been re-opened. The building is of red brick and Irish cut granite, surmounted by a cupola of carved stone, while the woodwork is polished mahogany. The windows are lofty, measuring some 14 ft. in height. The interior is in American polished pine, and the light at the back is admitted by a glass dome. The work was carried out by Messrs. Farquharson, builders, under the personal supervision of the Architect, Mr. Mitchell, Leinster Street.

BURSLEM.—A handsome Reredos has been erected in the Chancel of St. Paul's Church, Burslem, Staffs., by Mr. J. Green, of King's Heath. The main structure is of oak, relieved by walnut, ebony, pear, olive, and other woods, and is elaborately carved throughout in the 14th century style. This Reredos was exhibited at the Paris Exhibition of 1878, and was the means of securing a Silver Medal for Messrs. Jones and Willis, of Birmingham and London, who constructed the work from the design of the late W. Scott Champion, Architect. A brass tablet on a dove marble slab, commemorating the gift, has also been erected, this also being the work of Messrs. Jones and Willis.

TUNBRIDGE WELLS.—A Drinking Fountain has been erected at the junction of Albion and Quarry Roads, presented by Mr. Gower. The existing Drinking Fountains in the town cannot boast of much Architectural beauty, but this one has been well carried out by Mr. Burslein, the local Sculptor, to the designs of Mr. H. Willard, who is also responsible for many of the buildings in the neighbourhood. The Fountain stands 13 ft. high, and is constructed of Bath stone from the Monk's Park Quarries, in the Renaissance style of Architecture, the columns, keystone and the basin being of polished red Peterhead granite. The keystone bears the following inscription, "Presented to the Corporation by Councillor J. R. Gower, Anno Domini, 1896."

HEREFORD.—At the meeting of the Wellington School Board last week, plans of the proposed alterations and additions to the School, prepared by the Architect, Mr. E. G. Davies, were produced. These comprise a new Infant Room for 54 children, 24 ft. long by 18 ft. wide in the clear, with necessary Cloak Room accommodation, to match existing building, with the exception of large windows in gable and for light. A glass screen is shown dividing off the existing Class Room, and two windows are arranged close to the same to light the Cloak Room. Should this be deemed insufficient a dormer light would be inserted in the roof. The approximate estimate for the alterations, including the removal and rebuilding of the offices, repairing pump and other sundry work, is about £350.

HUNTINGTON, NEAR HEREFORD.—The re-opening of the little Church at Huntington, near Hereford, recently took place. Huntington is a Chapelry of Holmer and the Church is a neat stone building, of modern Architecture. The Vestry, which was a corner in the Nave of the Church partitioned off, has been done away with, thus throwing more room into the body of the Church; and a new Vestry, of stone, has been built at the west end, with storage for coal and other things underneath. The pews have also been restored and ventilated; the font, pulpit, and stove have been removed to more convenient places. New brass lamp pendants have been provided; the walls have been whitened, and the woodwork painted and varnished. The work has been carried out by Mr. Morris, of Portway.

ABERDEEN.—Corgarff Parish Church, which for the past two months has been closed while undergoing repairs and repainting and decorating, was reopened last week. The Church was built about 60 years ago, and is seated for 500 persons. For many years nothing has been done to improve either the exterior or interior of the building. The roof has been entirely reslated, and the outside pointed, and the external wood and iron work repaired and painted. Inside the Church has been entirely remodelled and improved. The ceilings of the Church and passages have been treated in distemper cream colour, while the walls have been oil painted. The general contractors were Messrs. John Mason and Son, Aberdeen. Messrs. Wright and Sons, Aboyne, were the contractors for the slater work, and Messrs. Hendry and Keith, Aberdeen, for the wood work.

DUBLIN.—The work of transforming the Leinster Hall into a Theatre on the lines of the Old Royal will be begun early in September. The corridor walls will be knocked down, and the width of the pit and pit stalls will thus be widened by about fourteen feet. The ground floor will be made to slope from the entrance to the stage in the usual manner. The ceiling will be raised ten feet higher than it is at present, and will be made to take a circular or oval shape. About fifteen feet will be added to the stage depth; the existing balcony will be replaced by a grand dress circle backed with boxes. A commodious second circle and a top gallery will also be provided. The entrance hall will be completely altered, and a new staircase erected. It is hoped that the work will be finished early in December, and that the Theatre will be opened at the beginning of the Christmas season.

SHREWSBURY.—The Hall which is being specially built for the Church Congress at Shrewsbury is now completed, with the exception of the internal fittings, which will be at once proceeded with. It is situated in the Quarry, an open space on the outskirts of the town. The Congress Hall, which has been built from designs by Mr. A. E. Lloyd Oswell, Architect, of Shrewsbury, will accommodate 2,500 persons. There will be two spacious reception rooms—one in the Corn Exchange and the other under the same roof as the Music Hall. The Ecclesiastical and Educational Art Exhibition will be held in a large building now being specially constructed in the Quarry, adjoining the Congress Hall. The loan collection is being organised by the Shropshire Archæological Society and the Powysland Club, while the general trade section will include exhibitors from all parts of England.

SOUTH SHIELDS.—With regard to the proposed extension of the Ingham Infirmary, at a recent meeting of the Governors it was stated that Mr. Grieve's plan provided for 48 extra beds, extra nurses' accommodation, &c., at an estimated cost of something under £5,000. Mr. J. T. Eltringham said he understood that the proposed extension would cost something under £5,000, without Architect's fees, furnishing, &c.; therefore, they would require about £6,000 to carry out the proposed extension in a complete form. With regard to raising the necessary funds, he thought it would not be policy to interfere with the invested funds of the Institution. With 95,000 inhabitants, they should have no difficulty in raising the money to build the new wing; and it would be a disgrace to South Shields if they could not do what was now required of them. In addition to the cost of the extension, there was the cost of maintenance to be considered;

and as their expenses at present were in round figures £2,000, he thought the proposed extension would mean an increase of about 50 per cent. If everyone helped they would be able to raise the necessary amount; but he was sorry to say a great many of the inhabitants of South Shields had not done anything for the support of the Institution.

OLDHAM.—New Bakery, Abattoirs, and other buildings have been erected in Mortar Street, for the Greenacres Equitable Co-operative Society, Limited. The block of buildings to the right as you enter the yard are to be used as Cattle Lairage, Slaughter House, and Cooling Room and they are lined with glazed bricks. The building on the left hand side comprises Lairage, Killing and Cooling Rooms. The Engine and Boiler House are conveniently placed, being central to their work. Adjoining the Boiler House is the Bakery, a large and well lighted room convenient in every way. The Stables are the two upper blocks of buildings and contain 17 stalls. A large Coach House, with sliding doors and a covered shed, completes this range of buildings. The buildings are fitted with electric lights throughout, and Dynamo and Accumulator Rooms are fitted up over the Bakery. The following were the contractors: Excavations, concrete, and brickwork, Messrs. J. and D. Blunn; masonry, Messrs. S. and J. Whitehead; carpenter and joiner, Mr. Booth Smith; plumbing and glazing, Mr. Stanley Bates; slating, Mr. R. C. Fletcher; steel principals, &c., Messrs. Heenan and Froude; concrete floors, Messrs. Homan and Rodgers; general wrought iron work, special rails for hanging and hoisting gear, and ventilator openers, Mr. J. Kershaw; bakery oven and machinery, Messrs. Werner, Pfleiderer and Perkins; lard tanks and cooling machinery, Oldham Boiler Works Company; sundry fittings, Mr. W. Lees. The whole has been caried out from plans, details, and specifications prepared by Mr. Thomas Taylor, Architect, 27, Queen Street, Oldham.

KEYSTONES.

MR. BENJAMIN L. COHEN has given £300 towards the building fund of the Northern Technical Institute at Holloway Road, Islington.

MR. WILLIAM N. M. ORPEN, a designer in the Dublin School of Art, has been awarded a local scholarship by the Science and Art Department.

THE Statue of Bishop Philpott has arrived in Worcester. It will be placed in the north ground of the Cathedral, facing High Street. It is anticipated that the Statue will be unveiled by the Lord Lieutenant of the county.

SOME philanthropic bequests are announced from Berlin. Herr Lothar von Faber died lately in Nuremburg, and has left the municipality 2,000,000 marks (£100,000) for the purpose of beautifying the city. He has also made legacies to his workmen amounting to about 500,000 marks (£25,000).

A LARGE four-storied Factory of the Leicester Cycle Company, Friday Street, Leicester, has been completely gutted by fire, and the flames spread to the adjoining factory of Messrs. Harding and Sons, trimmers. This building was also destroyed. The aggregate loss is believed to amount to over £20,000, but is said to be covered by insurance.

PLANS have been passed for the alteration and extension of Shrewsbury Station, and the work is to be proceeded with at once, and no less a sum than a quarter of a million will be spent. Shrewsbury Station is an imposing structure, the front elevation looking like the front of a fine old manor house rather than a station. Apart from its outward appearance there is nothing to recommend it.

THE Aston District Council proposes to purchase land near Oscott College, at the price of £1,000, for the purposes of a Smallpox Hospital. It was stated as being absolutely necessary that some arrangement should be made for a Smallpox Hospital for the district, but, although the land was to be secured it was not probable that the erection of the new Hospital would be commenced for at least twelve months.

SOCIETY MEETINGS.

The Dundee Institute of Engineers.—Between thirty and forty members of the Dundee Institute of Engineers recently visited the linen damask works of Messrs. John Shields and Co., Perth. The card-cutting room was first visited, and the method of transferring the designs to the cards explained. Passing through the mechanics' and smiths' shop, where several looms and jacquard machines were seen in process of construction, the visitors were conducted through the dressing, winding, pirning, and beaming departments, and had the various processes explained to them. The chief interest was centred in the weaving department, where there are 640 looms, ranging from 28 to 180 inches wide, and about 900 jacquard machines. The quality and class of work as seen in the looms, and which consisted principally of linen damasks, were much admired. Cotton fabrics woven with coloured designs were also seen, and some very beautiful fabrics in coloured silk. A loom weaving Turkish bath towels attracted special attention. The cropping, lapping, calendering, and packing departments were finally visited. The works are driven by three separate steam-engines, one of them being noteworthy as having worked since 1851, and said to be the first engine designed by Mr. J. G. Orchar, Dundee.

The Cambrian Archæological Association.—This Association will celebrate its jubilee this year at Aberystwyth. The meeting will be held on September 7th and four following days. Among the places to be visited during the excursions, perhaps the most attractive will be Strata Florida. The remains of the Cistercian Abbey there will be inspected under the guidance of Mr. Stephen W. Williams, F.S.A., whose exploration of the site under the auspices of the Association a few years ago yielded such valuable results. An opportunity will be afforded on one of the other days of seeing the well-known collection of MSS. in the possession of Mr. Wynne, of Penarth. Mr. J. W. Willis Bund, F.S.A., has promised to read a paper on Llanbadarn Fawr. Mr. Edward Laws, F.S.A., and Mr. Henry Owen, F.S.A., will lay before the Association their report on the archæological survey of Pembrokeshire, with which satisfactory progress has been made during the past year. It is hoped, also, that some decision may be arrived at as to the best means of preserving the great prehistoric Fortress on Treceiri, Carnarvonshire. A full programme of the excursions will be issued shortly by the general secretary, Canon R. Trevor Owen, F.S.A.

Institution of Junior Engineers.—The Institution of Junior Engineers, to the number of 50, held its summer meeting in Scotland, visiting several places where large engineering works were seen.

Sanitary Inspectors' Association.—The annual meeting of the Western Branch of this Association was held at Bristol. Mr. MacMahon was re-elected President for the third year, Mr. Press, of Burnham, was elected Vice-President, and Mr. Moss Flower, Bristol, was unanimously re-elected Hon. Secretary. The election of six members of the Council resulted in the reappointment of the retiring representatives—Messrs. Garland, Barnstaple; Hann, Beaminster; Knowles, Clevedon; Segar, Newton Abbott; Veale, Dartmouth; and Barrons, Tiverton Rural. Mr. Howard, of Wellington, was asked to act as the delegate of the Western Branch at the Leeds Conference, and Mr. Wreford, of Exeter, and Mr. Moss Flower were desired to represent the Branch at the Sanitary Institute Conference at Newcastle-on-Tyne. Mr. D. Cameron, City Surveyor, Exeter, had prepared a paper on "The Reconstruction of Sewers in Narrow Streets and their Cost," and being unable to be present the paper was read by Mr. Press, of Burnham. Papers were also contributed by Mr. Moss Flower, Bristol, on "House Drainage," and by Mr. J. Siddals, Tiverton, on "Some Rural Difficulties," the latter being submitted, in Mr. Siddal's absence, by Mr. Barrons, Tiverton Rural. After the meeting the members visited the City Refuse Destructor and Corporation Electrical Works, and the annual dinner of the Association took place in the evening.

Penzance Natural History and Antiquarian Society.—The members of this Society recently spent a day in the St. Erth, Gwithian, and Gwinear districts. At Trewinnard an old house in the Queen Anne style of Architecture, lying about a mile and a half to the south of St. Erth station, was visited. The present tenants showed the party over the house, and gave them an opportunity of fully inspecting the well-preserved tapestry which covers the walls of one of the rooms. Interest was also shown in a very old family carriage, located in an outhouse. The ruins of an old Chapel, hitherto unnoticed, were pointed out by the vicar of St. Erth, the Rev. C. R. D. Carter. A move was made to St. Erth, where the vicar described the parish Church and traced its historical associations. Several ancient crosses in the churchyard, one of which was remarkably deeply carved, were inspected. Dr. Hugh Montgomerie, the hon. secretary, described the ruins of St. Gothian's Chapel, Gwithian. The parish Church of Gwithian and the stocks were dealt with by the Rev. D. La Touche.

The Aberdeen Ecclesiological Society.—A meeting of this Society was held last week. The first business was a communication, "A raid into Northumberland," by the president, the Rev. Dr. Cooper. Along with a friend, he started on a week's driving tour on Monday, 29th June. Jedburgh was the starting point, and the mention of the Border town gave the lecturer an opportunity of saying a word with regard to the ruins of the ancient Abbey, now preserved, he said, with loving care by the proprietor, the Marquis of Lothian. The Roman camp at High Rochester was briefly described, and Hexham and its Abbey next engaged attention. Passing on, Dr. Cooper sketched briefly some of the salient features of many Churches, new and old, and the little towns passed through, indicating many interesting points by the way. He remarked, for instance, on the remarkable beeches at Wallington, the seat of Sir George Trevelyan, the noble altitude of the trees being fully brought out by the enclosing sunk fence. He touched on Alnwick, and, of course, its historic Castle, second only in England to Windsor itself. He observed that the Castle is kept in excellent order, even the dungeon being illuminated with the electric light. The Society next discussed the arrangements for the annual excursion on the holiday, 28th September. On the suggestion of Mr. Kelly, Architect, supported by Mr. Holmes, it was decided to visit Inchcolm, and probably Dunfermline, in company with the Glasgow Ecclesiological Society.

The Historic Society of Lancashire and Cheshire.—This Society's third excursion of the present season was to Ormskirk Church and the Almonry at Lathom. Arriving at Ormskirk Church, the members were met by Mr. James Bromley, of Lathom, who acted as guide, and a thorough examination of the building was made. The sites of the Chantries were pointed out, and the monuments to the memory of the ancient Earls of Derby described. It is a curious fact that Ormskirk Church has no monument either of the Earl James, who perished at Bolton, and who has always been looked upon by Lancashire people as a martyr or of the Countess (Charlotte de la Tremouille), whose heroic defence of Lathom House against the Parliamentarians is a stirring incident in the history of the Civil War. The registers of Ormskirk, which are in wonderful preservation, and begin in 1557, were produced by the Vicar for the inspection of the members of the Society. The registers contain entries of the deaths of the last prior and several canons of Burscough. The Church plate was also produced for inspection. A drive was then taken to the Almonry in Lathom Park. This charity, founded by one of the Earls of Derby in 1500, and endowed by him, is one of the very few charitable foundations which were not interferred with at the dissolution of the Chantries. Originally intended for a priest and eight bedesmen, the charity now provides for ten poor persons, the stipend of a chaplain, and the education of many children. Proceeding to the Bath Farm, a stop was made for the members to examine the curious open-air bath (supplied by a spring of clear water), which is locally believed to have been the old bath used by the Brethren of Burscough Priory.

Trade and Craft.

THE DUBLIN DISPUTE SETTLED.

The dispute between the master builders and the bricklayers in Dublin was settled on Friday, at a conference presided over by Archbishop Walsh. The men have been granted an increase of ½d. an hour, and the working week has been reduced from 57 to 54 hours, thus bringing bricklayers into uniformity as regards hours with kindred trades. The term for apprenticeship has been increased from six to seven years. This settlement will bring into work an immense number of destitute labourers. The only remaining trades to be conciliated are plasterers and masons.

PARTIAL COLLAPSE OF A VIADUCT.

During Tuesday night and Wednesday morning the arches over the centre pillars of the new Viaduct carrying the Vale of Glamorgan Railway over Porthkerry Park, sank down between 10 and 13 inches, and it was considered unwise by the contractors (Messrs. Pethick Bros.) to allow any traffic over the arches. One of the central pillars has given way somewhat, and considering that the work of construction has taken about two years, this occurrence is regarded as a very serious matter, inasmuch as further delay might be occasioned to the opening of the railway. As far as can be ascertained, it is proposed to entirely renew the centre pillar from the foundation.

VENTILATION OF THE UNDERGROUND RAILWAY.

Analyses have been made of some air taken between King's Cross and Gower Street, which is probably the worst part of the Underground Railway, so far as ventilation is concerned; and the result is very alarming. Dr. Angus Smith has shown that the amount of oxygen in the samples of air taken was only 20.60 per 100 parts by volume. The normal quantity of carbonic gas is 0.037 in 100 parts, but Dr. Angus Smith (from whose analysis we quote) found that in one of the Metropolitan Railway tunnels the carbonic acid gas was 0.388 per cent. This is excessively high, considering that, whenever the carbonic gas in the atmosphere exceeds 0.100 per cent., the air is too much polluted to be breathed with safety to health.

BAD MORTAR.

Charles Edward Woodhead, of 12, Hampden Road, Hornsey, was summoned by the Wood Green District Council for using mortar in the erection of houses in Palace Gates Road which was not compounded as required. A second summons charged defendant with continuing the offence for fourteen days after a written notice had been given him. Robert Henry Harland, an analytical chemist, said he had received samples and analysed them. There was vegetable matter, which was apparent to the naked eye, and a deficiency of lime. Under the bye-law there should be 13.4 per cent. of lime, but the analysis showed only 8.15 per cent. John William Stevens, Architect, said he considered that the mortar was of fair quality. Mr. Taylor, public analyst, said that samples taken by the previous witness were submitted to him. Witness found the proportion of lime to sand and grit was one to four, and to all other matter as one to five. The sample complied fairly with the standard required by the bye-law. The Bench was satisfied that the bye-laws had not been complied with, and imposed a fine of 40s. in each case, with costs.

GLASGOW AND THE ELECTRIC LIGHT EXTENSION.

Upon the subject of Electric Light for Glasgow, the Sub-committee reports that, after visits to the electric lighting works of the Corporations of Manchester and Brighton, the Vestry of St. Mary, Islington, and the City of London Electric Lighting Company, Limited, it recommends that the low-tension continuous current system of distribution should be adhered to by the Corporation in whatever further extensions of the electric lighting systems are hereafter carried out within the municipal area. Now that the maximum pressure allowed with low-tension continuous currents has been raised by the Board of Trade from 250 to 500 volts, the increased latitude will permit of the current being transmitted along the distributing mains to a distance twice as great as was the case under the former regulations. With reference to additional generating stations and mains, which will require to be put down for the proper supply of the whole municipal area, and the particular localities in which such stations could with the greatest advantage and convenience be placed, the Sub-committee is not yet in a position to make any definite proposals.

BUILDING IN ABERDEEN.

Plans of the following new buildings have been approved by the Town Council:—Dwelling-house on the north side of Belgrave Terrace, for Mr. P. Bruce, per Mr. John Rust, Architect; dwelling-house on the south side of Bedford Road, for Mr. James Smith, per Messrs. D. and J. R. M'Millan, Architects; keeper's lodge at the Stewart Park, for the Council, per Mr. John Rust, Architect; cottage on the east side of King Street, for Mr. James Johnston, Clifton Road, per Mr. George H. Jolly, Architect; new showroom at No. 37, Guild Street, for Messrs. Henry Pooley and Son, per Mr. Joseph Leith, builder; two dwelling-houses on the east side of Great Northern Road, for Messrs. James Grant and George Scott, per Mr. William Smith, Architect; two dwelling-houses on the east side of new street at Angusfield, for Mr. George Proctor, per Messrs. Ellis and Wilson, Architects; shop and dwelling-house on the west side of Victoria Road, Torry, for Mr. Charles Strachan, per Messrs. Brown and Watt, Architects; two dwelling-houses with shops, on the north side of Belvidere Place, for Mr. W. D. Buyers; two dwelling-houses on the west side of Ferryhill Road, for Mr. A. Melville; dwelling-house on the west side of Skene Square, for Messrs. Walker and Ross, builders; dwelling-house on the east side of Holburn Street, for Mr. James Jamieson.

A DEFECTIVE PAVEMENT.

At Longton, Judge Jordan had before him a case in which Thomas Breeze, miner, sued Messrs. Battison and Bridgett, plumbers, Longton, for £50 damages for personal injuries sustained by reason of the alleged negligence of the defendants. It was stated that in May last the defendants were engaged in repairing a pavement light in front of a confectioner's shop in Market Street. The squares of glass which had to be let into the iron frame to replace broken ones were found to be a little too large, and had to be reduced in size. While this was being done, the workmen filled up the spaces in the frame with pieces of wood. On the morning of the 8th May Mrs. Breeze was walking over this pavement light, when one of the blocks of wood yielded beneath her foot, and she was thrown down with such violence as to cause the rupture of a blood-vessel. She was confined to her bed for five weeks, and was still suffering from shock and other effects of the fall. For the defence it was contended that the wood blocks were used while the glass was being ground down under the instructions of the agent of the landlord of the property, and, therefore, that the landlord and not the defendants was liable, and that there was no evidence of negligence on the part of the defendants or their workmen. His Honour said that these pavement lights were a most dangerous contrivance, and a nuisance at common law, and if either the tenant or the landlord had been sued, he should have held that they were liable. He gave judgment for the plaintiff for £10 and costs.

IMPORTANT CONTRACT CASE.

A case of considerable importance to builders was heard recently before Judge Yate-Lee at Whitchurch County Court. The action was brought by George Dodd, builder, of Whitchurch, against John Weaver Chinton, solicitor, for the sum of £26 10s., balance of account due on a contract for work done by plaintiff for defendant. With the exception of 10s. the claim was not disputed, but the defendant put in a counter-claim of £50—25 weeks at £2 per week—for alleged breach of contract in respect to the time in which the work was to be completed. His Honour, in giving judgment, remarked that Mr. Chinton had submitted that the penalty of £2 per week for delay in completion was to be taken as liquidated damages, and that was not disputed by plaintiff's counsel. But some extras were ordered beyond the work expressly mentioned in the specification. Mr. Dodd had stated in his evidence that he could not have completed the work, with the extras, within the stipulated time. Mr. Chinton had claimed the £2 per week for which the work was delayed after deducting two weeks, which he maintained was a fair time for doing the extras. Upon the question whether the order for extras prevented a claim for liquidated damages under a contract in the particular form which the parties had entered into, each side relied on the views of certain writers, but no decisions were produced, although the names of several, cited in the text book, were given. He had, however, examined the leading cases on the subject, and, in his opinion, they established that under a building contract, with conditions framed as in the present case, the builder was relieved from his obligations to perform by a stated time when the employer ordered extras. The damages here were not the actual damages suffered, but an artificial sum agreed upon before-hand by the parties for a particular event, and when the event was altered by even a slight amount of extra work, the damages were not liquidated for the new event, and were not necessarily the £2 per week with allowance of time for doing the extras. To him, no question as to a cross action being necessary arose, and, therefore, it must be dismissed.

KEYSTONES.

MR. DANIEL J. DIVER, of Forest Road, London, has been appointed Inspector of Nuisances and Surveyor of the Wirksworth Urban District Council.

AT Limerick the St. Joseph's Industrial Schools are now complete. The buildings, besides providing additional accommodation, include a Chapel, and have cost something like £6,000.

THE work at the new General Post Office in Victoria Street, Liverpool, is progressing slowly but surely. It is expected, however, that another two years' work will be necessary before the staff can be located in their new quarters.

AN enquiry has been held at the District Council Offices, Elland, by an inspector of the Local Government Board, into the application of the District Council to borrow the sum of £2,100, the major portion of which is to be spent on widening the bridge at Elland over the river Calder. There was no opposition.

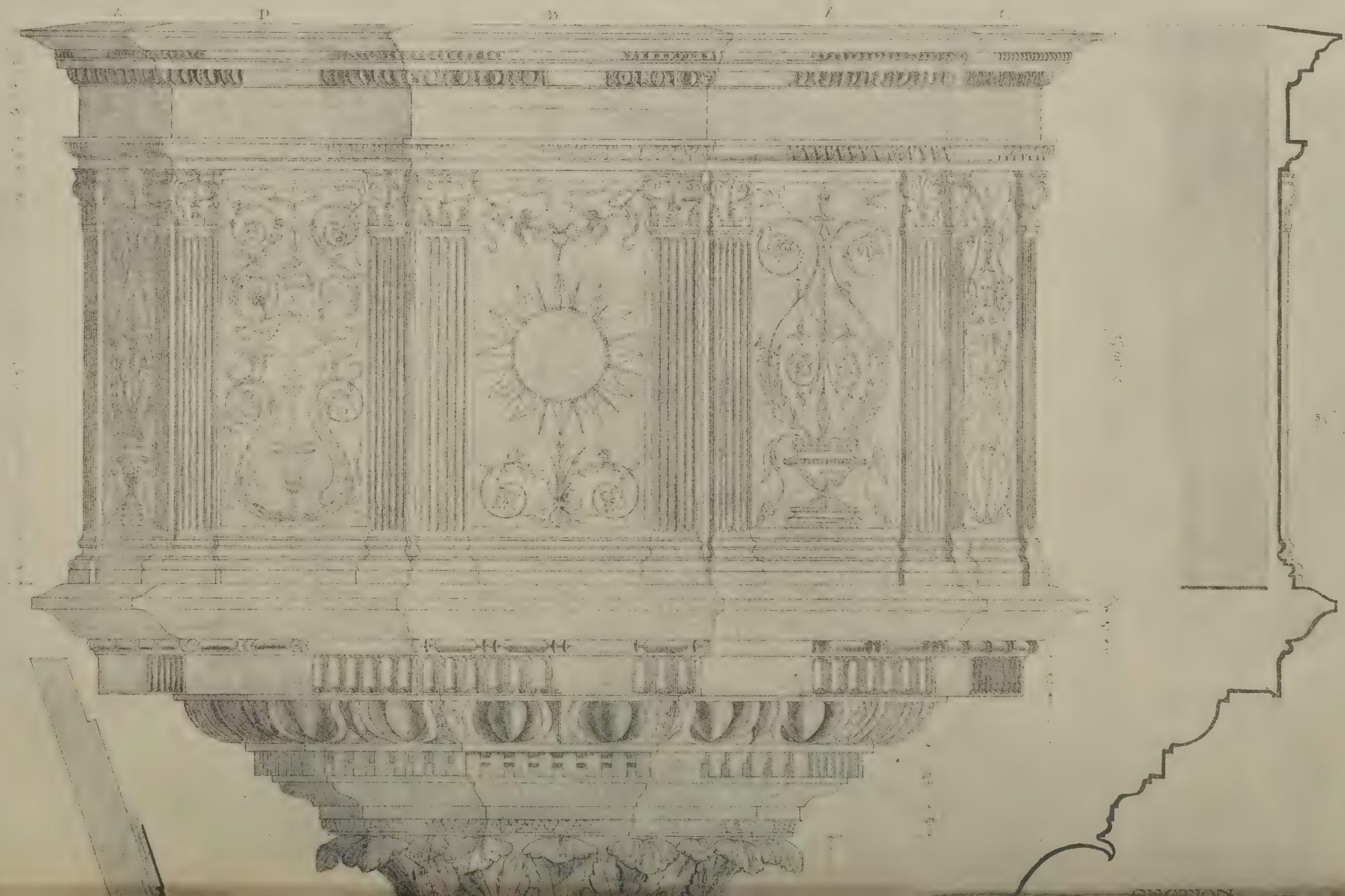
THE historical Eccleshall Castle in Staffordshire has been recently sold. The Castle was founded at a very early period; about the year 1200 Bishop Muschamp had a license from King John to make a park here and embattle the walls of the Castle. The place has been for a long time the chief Palace of the Bishops of Lichfield.

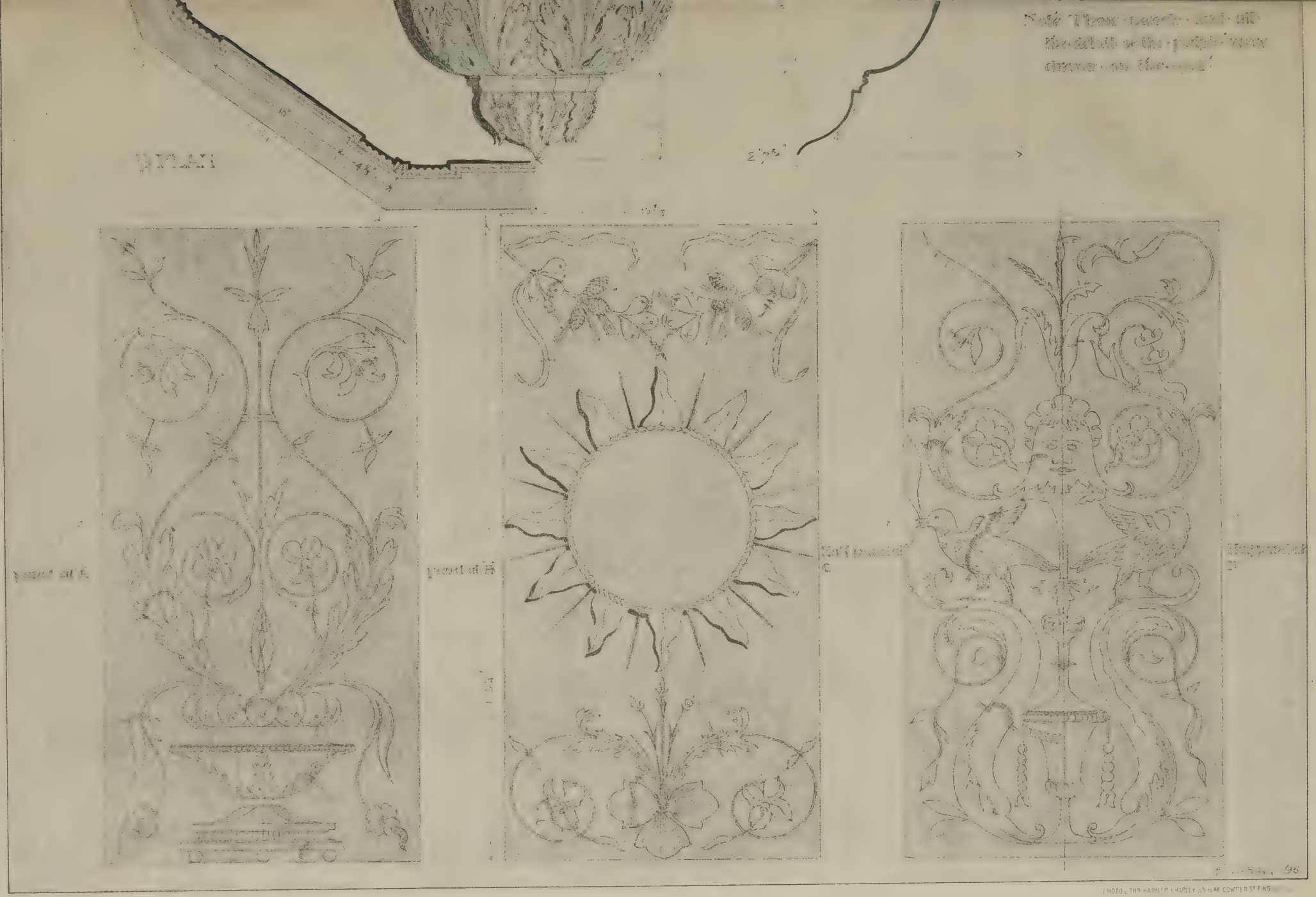
ON Thursday afternoon the foundation stone of the Public Baths for Kensal Town—adjoining the Chelsea parochial offices in the Kensal Town Road, was laid by Mr. J. Humphrey, the chairman of the Chelsea Baths Commissioners. There will be two swimming baths, 83 ft. by 30 ft., and 60 ft. by 25 ft. respectively, and 51 private baths. The cost of the undertaking will be about £26,000.

ON Thursday the partial destruction of a bridge by fire, near Willesden Green Station, occurred on the Metropolitan Railway. The line at a short distance from that station crosses an iron bridge on brick supports, and this bridge had been recently shored up with a large number of sleepers. Between eleven and twelve o'clock these sleepers were found to be on fire. An alarm was given, and after about two hours' work the flames were extinguished. The flames, however, had caused the iron girders of the bridge to expand, and the sudden contact of the water caused them to contract and crack. A large gang of workmen was soon at work, and ultimately the bridge was again shored up by new sleepers, and the traffic was resumed at six o'clock in the evening.

PVLPIT, CHVRCH · of · SANTA · MARIA · MADDALENA · FLORENCE.

The original in marble. From a cast in South Kensington Museum.





FROM A CAST IN SOUTH KENSINGTON MUSEUM. Drawn by F. H. Waring.

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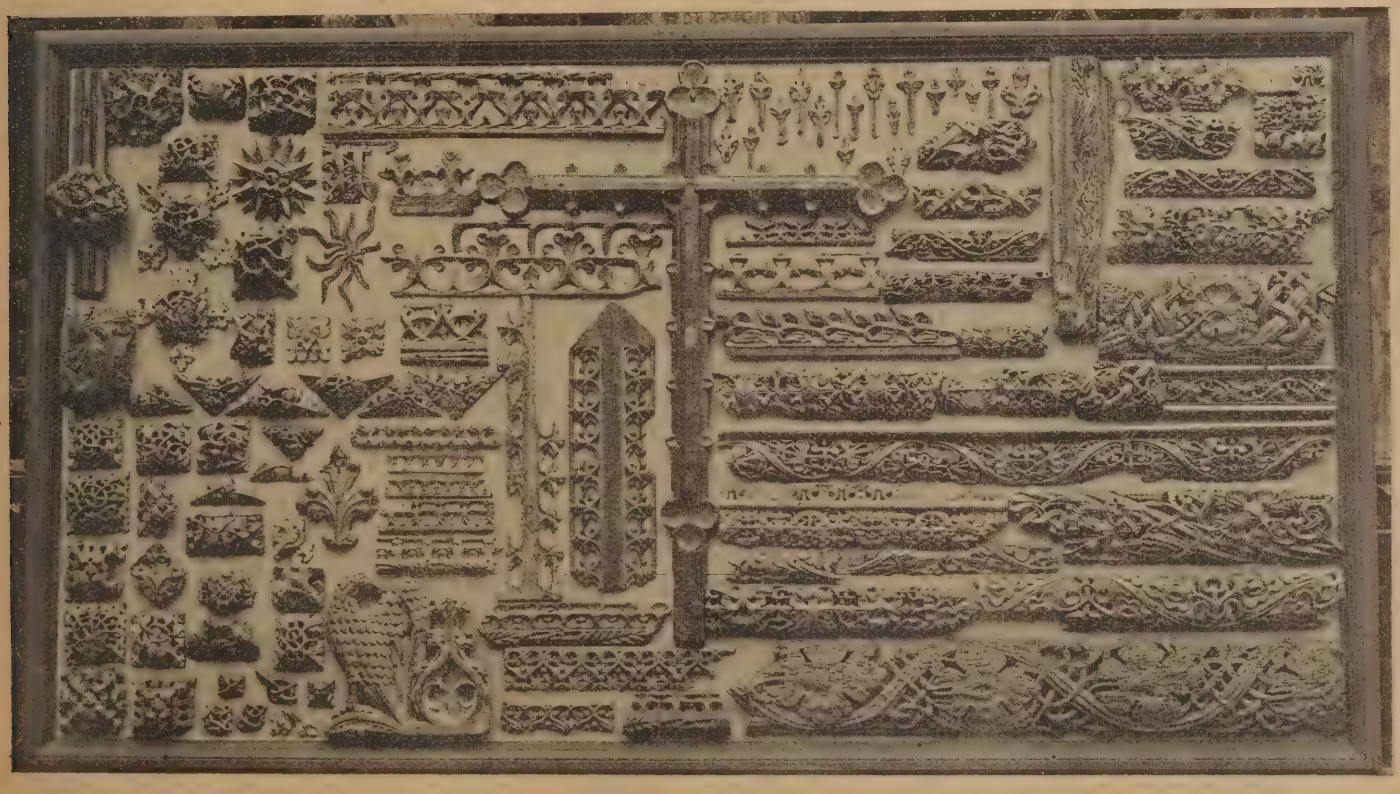
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A Few Art Figures. Figures are, in themselves, so alien to Art, that a brief consideration of the report of the Department of Science and Art strikes one with a new and somewhat anxious interrogation on the old law of Supply and Demand. The figures bulk so largely, that the temptation exists to use the terms of commerce: "output," "ratio of increase"—and the rest. Are we making widening circles—circles that will ultimately reach the shore?—by this general and frequent diving into the ocean of Art? There is great danger in such depth—of numbers. Since 1886 the tide has been rising; in the decade you will probably be astonished to hear that the number of schools has increased by 991, and the number of students by 98,566. Art, may still be *caviare* to the general, but it is no longer the hugged possession of the Epicurean few. We are very firm in our view that no country in Europe can show such a Revival, such a wide-spread appetite for Art. It is a very wonderful seed-time and the educational sowers have been feverishly eager, but the harvest is not yet. There will be some tares to travel, and, indeed, these are as significant now in every manner of competition as scarlet poppies in shorn ground. But the poppy can be eradicated with difficulty, and so can—by equally arduous means—banality from Art. All can grow the flower now, when all have got the seed—the pained and somewhat piqued expression of the late Laureate in regard, no doubt, to certain of those exquisite tricks of his manner—does not appertain to Art. The profligacy upon stony ground still continues; you cannot grow grapes from thistles. Therefore, the man who would judge dispassionately of the wonderful bound in the Art tendencies of the time must take pessimism for his grain of salt. But with this flavour in his palate he can, nevertheless, feel mightily encouraged by the bulking masses of these students, knowing that some knowledge of Line, and of the Anatomy of Beauty must



FRAGMENTS OF FIFTEENTH CENTURY CARVED OAK WORK: COLLECTED BY MR. H. HEMS, EXETER.

result from so widespread a culture, and that the generation to come compared with that of its grandfathers will be as Grinling Gibbons to a barn door. And this measurement of attainment looked at perspectively, from the right end of Progress, will then seem marvellous. Take on the Science Side of last year, the 2,139 Schools in England and Wales, the 366 in Scotland, and the 168 in Ireland, examined. The number of students who came up for examination from the schools was 108,163—an increase of 8,345 on the previous year. Think of it! Eight thousand! Are reading, writing and arithmetic (one is inclined to ask) making similar progress? Besides these, there were 5,235 self-taught students and, given the germ of genius, these five thousand may number among their ranks that part which is greater than the whole. Now, take the nett 113,598, and you have 52,079 successful in one or more subjects; 22,542 successful for the first time. What is to be found on the Art Side of last year? During the year ending on the 31st of August, 19,898 Elementary Day Schools, with 2,192,253 scholars, were taught drawing and were examined under the regulations of the department; 891 of these Schools were in Scotland, 79 in Ireland, 45 in the Isle of Man, and 18 in Jersey. This was an increase of 251 Schools and of 68,578 scholars as compared with the numbers in the preceding year. In the more advanced work the number of Art Schools and Classes, including 91 Science Schools which take Art subjects, examined in Art in 1895 was 1,883, as against 1,888 (which included 112 Science Schools) in 1894, showing a decrease of 5. The number of students under instruction was 136,324 in 1894, as compared with 136,768 in 1895. Of the latter, 132,390 were of the industrial class. Of the 284 Art Schools and Branch Classes and the 1,478 Art Classes examined last year, 242 Schools and 1,300 Classes were in England and Wales, 25 Schools and 130 Classes in Scotland, and 17 Schools and 48 Classes in Ireland. The number of students who sat for examination was 78,141 in 1895, or 2,209 more than in 1894.

THE Parish Church of Grove, on the borders of Bedfordshire and Buckinghamshire, but situate in the latter county, is said to be the smallest and most curious Church in England. The parish contains under 20 inhabitants, and the Church will comfortably seat a few more than that number. The Church has been restored at a cost of £250.

DAMAGE to the amount of £2,000 was done by a fire which broke out late on Thursday night at Canterbury and entirely demolished the extensive Saw Mills belonging to Mr. H. B. Wilson. Some valuable screen work and other timber in preparation for Kippington Church, Sevenoaks, and Upper Hardres Church, Canterbury, were destroyed.

THE two Royal Saloons which the Queen has used for many years on the journeys from Windsor or Osborne to Ballater, have been practically reconstructed by the London and North-Western Railway Company. The Corridor connecting the two Saloons, one of which was used as a sleeping apartment, and the other as a drawing room, has been removed, and the bodies of the Saloons have been united so as to form one Saloon of uniform width throughout, and 60 ft. in length from buffer to buffer. An entirely new under carriage has been provided, similar in design to those now in use on the latest dining cars on the West Coast route, viz., with two sets of six wheels, on the bogie principle, at each end of the vehicle, which, therefore, runs on twelve wheels.

THE new battleship Victorious has been reported to the Admiralty as ready for the official trials of her machinery, which will be of an exhaustive character. The Victorious, has a displacement of 14,900 tons, and has been engined by Messrs. Hawthorne, Leslie, & Co., of Newcastle-on-Tyne.

MR. SOMERS CLARKE AND THE TEMPLE OF DEIR-EL-BAHARI.

WRITING to the "Times," as honorary secretary of the Society for the Preservation of the Monuments of Ancient Egypt, Mr. E. J. Poynter says: "I venture to forward to you the accompanying statement from Mr. Somers Clarke, F.S.A., concerning the remarkable Temple at Deir-el-Bahari in Egypt—which we append—which has been recently revealed by the excavations conducted at the cost of the Egypt Exploration Fund, my object being to appeal for subscriptions for the work of preservation proposed by him. Mr. Somers Clarke had already made a report on this subject to the committee of the Egypt Exploration Fund, and his recommendations were adopted. From his statement concerning the artistic and archæological value of the remains discovered at Deir-el-Bahari, it is evident that the importance of sheltering them and preserving them from the degradation of time and accident cannot be over-rated. To do this is beyond the resources of the Egypt Exploration Fund, a body which has not only expended large sums of money in laying bare the ruins, but is producing, to a large scale, the illustrations which will ultimately give a record of every part of the structure. It seems to me, therefore, that the attention of the Society for the Preservation of the Monuments of Ancient Egypt may very well be turned towards seconding the efforts of the Egypt Exploration Fund, by taking in hand such works of protection as are deemed necessary, doing this in a way that shall be as inexpensive and permanent as possible. The cost of such a work has been estimated roughly as from £200 to £300, and Mr. Somers Clarke has liberally offered to superintend its construction during the ensuing winter, free of expense to the Society. The work which the Society undertook for the preservation of the

TEMPLES OF KARNAK

has now been successfully completed through the admirable assistance given by the officials of the Irrigation Department at Cairo, at a cost of about £1,250; and will form the subject of a report to be presented at the General Meeting of the Society to be called in the autumn." Mr. Somers Clarke's Report:—"Few, if any, buildings that have been made known to us by research in Egypt exceed in interest, or in the beauty of their sculptures, the great Funerary Temple, built by Queen Hatshepsu, now known as Deir-el-Bahari, and standing on the west bank of the Nile, facing across the river to Karnak. The position of the Temple, standing as it does at the head of a valley and encompassed by cliffs is not a little impressive; and the Architect has adapted his design with great skill to suit the site. The walls are entirely faced with limestone of an ivory colour and of the finest texture. This texture has enabled the sculptors to exercise their skill with the utmost prodigality. The walls are, in fact,

ONE VAST HISTORICAL BOOK,

presenting to us not only the customary religious representations, but also subjects of such remarkable interest as the well known "Expedition to Punt," in which the minutest details are set forth with extraordinary force and observation. To Mariette we owe the first clearing of this Temple on an extended scale. He left, however, as much undone as he had done. Most of the northern part of the Temple area was still buried and unexamined. The Egypt Exploration Fund, under the direction of M. Ed. Naville, has now cleared the site, removing vast mounds of *debris*, and enabling us to see the whole place, with its terraces, colonnades, and sculptures. Unlike a great number of Egyptian Temples, Deir-el-Bahari is not built of large stones. The moderate size of the stones has enabled them to be overthrown with an ease which a more massive style of construction would have rendered difficult; and now that the walls are exposed and that the Temple is annually visited by multitudes of tourists, many of whom are not particularly careful where they walk or what they do,

THE DANGER OF FURTHER DESTRUCTION

has become very serious. Indeed, the remedy must be taken in hand at once. Nor is this the only danger. Placed, as has been already said, at the very head of the valley, and overhung in part by vertical cliffs, many of the now roofless chambers are exposed to the constant fall of small pieces of rock which, attaining a high velocity owing to the distance they traverse, are liable to damage very seriously the sculptured surfaces which they strike. A third reason for protecting the ruins is that the sun, blazing with unabated force upon the wall surfaces, is rapidly bleaching the brilliant colours with which the sculptures have all been originally painted, and which, where but recently exposed, are in perfect preservation. When some thirty years since the sculptures of the "Punt" expedition were revealed and cleared from the mass of *débris* which buried them, the colours were still bright. Now hardly a trace remains. The first part of the Temple to be protected should be that which, lying close under the cliffs, is subject to damage by falling stones. Here vaults of crude brick and of considerable thickness will be turned over the chambers. These vaults, being open towards the south, will admit abundance of light, but will not suffer from the fall of stones from above. In other parts of the Temple modifications of the same system will be adopted, whilst the tops of the walls, very subject to degradation by the boot heels of the tourist, will be encased with brick. The roof of the Hopostyle Hall, now in a state of perfect preservation and glowing with colour, stands in immediate need of external protection both against the not very frequent danger from rain and also against the disintegration caused by the extreme changes of temperature which cause the stone slabs to expand and contract and ultimately to split up. The upper layer of slabs with which the ceiling stones were once covered no longer exist, and the protection they afforded is wanting. What is intended to be done should be taken in hand without delay. Destruction and disintegration are unfortunately always in progress."

AN extensive fire occurred at Charleroi on Thursday morning, causing the total destruction of the electric works owned by the Dulait Company. The damage amounts to 400,000f. covered by insurance.

PART of Cardiff Castle grounds have been recently dug up, bringing to light the foundation of an old Priory called "White Friars," known to have existed some centuries ago. The foundations of the Church are perfect. Further excavations are being made.

AFTER a long delay, the work of constructing a Government Fort on Nell's Point, Barry Island, has been commenced, and it is understood the War Office Department has decided that the structure and its appliances shall be of the most modern and improved description.

THE Paris Municipality is turning the city sewage to a considerable profit. Two years ago it acquired a sandy tract of two thousand acres in the forest of St. Germain. A fifth of the city sewage was turned in the tract which was converted into a sewage farm. The two thousand acres is now rich land.

A TWO-LIGHT ornamental foliated window, with medallion centres, has been inserted in the Free Church, Prestonpans. The window is dedicated to the memory of Mr. Robert Hislop, Castlepark. The window was executed at the studios of Messrs. Ballantine and Gardiner, Edinburgh.

ONTONAGON, in the State of Michigan, was destroyed by fire last week. Scarcely a house out of 500 was left standing, and the plant of the Diamond Match Company, together with 60,000,000 ft. of lumber in their yards, was burned. The loss amounts to nearly 2,000,000 dols.

AMOY, in China, bears the unenviable reputation of being the dirtiest and most unhealthy city in the world. It is exceedingly old. Inscriptions on ancient tombs run back so far as the beginning of the Christian era, and coins discovered in graves date from 1,000 to 500 B.C. During all this period the hillsides of the city have been used as burying grounds. As the population increased, the houses encroached upon the cemetery land until the two became hopelessly mixed. The wells are shallow, and are sunk on the edges of the graveyards, and even among the tombs themselves. The town has no sewers whatever.

MANCHESTER IMPROVEMENTS.

NEW LABOURERS' DWELLINGS.

THE Sanitary Committee of the Manchester Corporation has, says the "Manchester Guardian," prepared a report for presentation to the City Council to-day on the subject of the utilisation of areas that have been cleared of unhealthy dwellings. On the 12th and 17th August the City Surveyor submitted plans of shops with tenements over, fronting Oldham Road, and a Model Lodging House fronting George Leigh Street, proposed to be erected upon this site at an estimated cost of £47,000, and providing accommodation for 741 people of the working class, and these will be recommended to the Council for approval, and the Council further recommended to direct application to be made to the Local Government Board for consent to the necessary variation of the Board's order confirming the Manchester Labourers' Dwellings Scheme, 1890. Plans will also be submitted of a Model Lodging House to be erected upon the Chester Street area for the accommodation of over 278 persons of the working class, at an estimated cost of £19,500, which the Committee also approves of. With regard to area No. 2 Pott Street, the City Surveyor has prepared plans of Tenements and a Lodging House for the accommodation of over 328 persons of the working class, at an estimated cost of £20,000. These plans are likewise to be recommended to the Council for approval. At a further meeting of the Committee, held on the 27th inst., the City Surveyor submitted a report and sketch plans of the proposed buildings. He had, he said, visited Tenement Dwellings and Model Lodging Houses in London, Glasgow, Dublin, and Salford. Of the Oldham Road area he remarked:—"The Oldham Road area (known as Block No. 1) lies between Oldham Road, Cornwall Street, George Leigh Street, and Spittal Street, and is in close proximity to the block of Labourers' Dwellings recently erected by the Corporation, one frontage of which abuts on Spittal Street. The total area of the site is 9,078 yards. It is proposed to improve Cornwall Street, George Leigh Street, and Spittal Street by making them each 18 yards wide, for which purpose 1,580 yards of land will be required. It is also intended to form a new Street 12 yards in width, parallel with Oldham Road, from Cornwall Street to Spittal Street. The proposed

NEW BUILDINGS

will consist of two separate blocks—viz., one block facing Oldham Road, consisting of Shops with Tenement Dwellings over, and absorbing an area of 1,668 superficial yards; the other block, consisting of a Lodging House for men, and occupying an area of 4,774 superficial yards. That fronting Oldham Road and backing on to the new street would contain 14 Shops, with two stories of Tenement Dwellings over, and with basements under each Shop. The Shops have a private side entrance in addition to the ordinary business doors, and there is a Store Room or Office, a water-closet, and dust shoot at the rear. The Tenements are approached by entrances from Oldham Road. A separate entrance and staircase is provided for each group of Tenements. The group consists of four separate Tenements—two of two rooms each and two of three rooms. Each Tenement is complete in itself, having a Living Room, one or two Bedrooms, with Scullery containing sink and boiler, also a water-closet, coal bunker, and ash-shoot. Each Tenement is provided with a balcony at the rear, separated from that of the adjoining building by a brick division wall. A portion of the floor of each balcony is filled in with reflecting prismatic lights.

THE FOLLOWING ADVANTAGES

may be claimed for these Tenements: (1) the sub-division of Tenements into groups by separate staircases; (2) the entrance to all tenements from the front street by well-lighted and well-ventilated stone staircases; (3) a separate balcony, forming a yard to each Tenement; (4) a separate Scullery, obviating the need of a common Laundry; (5) easy means of escape in case of fire or panic; (6) each Tenement is completely isolated, and contains all the accommodation of an ordinary cottage dwelling. In estimating the number of persons to be accommodated in this block of buildings, the same basis has been taken as that upon which the existing buildings (Oldham Road, Block No. 2) were calculated, but the basement and shops have been excluded from this calculation. The tenements consist of seven sets of three-roomed tenements and seven sets of two-roomed tenements on the first floor. The second floor contains a similar number of rooms. The total accommodation provided in this block, upon the basis before mentioned, is 154. The remaining block of buildings on this site consists of a Lodging House, with accommodation for 587 men. This block has a main frontage to George Leigh Street of 263 ft., and frontages to Cornwall Street and Spittal Street of 166 ft. each. The ground floor consists of large rooms for Dining, Smoking and Reading; Superintendent's Rooms and Office, a Shop, lodger's Kitchen, Scullery, &c., with Dormitories fronting Cornwall Street and Spittal Street, and a small Dormitory in the centre. There is a basement under a portion of the building in which Lavatories, lodgers' Lockers, Boiler House, and other offices are provided. The building is three stories; the first and second stories are in every respect similar, therefore a description of one will suffice for both. They each consist of three blocks of Dormitories, 166 ft. long by 23 ft. 6 in. wide, connected in the centre by a building of like character. In designing these buildings special attention has been given to light and ventilation." The estimated cost of these buildings is £47,000. It is proposed to improve Hulme Street and Marsland Street, making them 18 yards and 12 yards in width respectively, also to set back certain portions of the existing frontages in Chester Street and Wilmott Street, making those streets 18 yards in width, and to provide a new 12-yard street leading from Hulme Street to Marsland Street, and abutting on the existing Mill and Cottages on the south-west side, and the new Lodging House on the north-east side.

A NEW LODGING HOUSE FOR MEN

is suggested on the area lying between Hulme Street and Marsland Street; and to set apart land between Marsland Street and Chester Street, having a nett area of 2,112 yards, for the purposes of an open space for recreation. The buildings suggested for a Lodging House provide accommodation for 278 men. The building will be three stories in height, the Dormitories being placed upon the first and second floors. The estimate of the cost is £19,500. As regards the Pott Street area—between Pott Street, Sandford Street, Caroline Street, and Wharf Street, intersected by Beatson Street—it is proposed to improve the surrounding streets, and to erect Tenement Dwellings two stories in height on the land to the north-east side of Beatson Street, providing the accommodation already described in the Tenement Dwellings over the Shops on the Oldham Road site. In addition to providing the minimum area in accordance with the conditions of the Corporation bye-laws, a further space has been set apart between the yards of these Tenements as a recreation ground. The Tenements afford accommodation for 110 persons. It is proposed to erect a Lodging House for females on the area to the south-west of Beatson Street sufficient to accommodate 218 persons. The estimated cost of this building is £20,000. The Committee recommends the Council to approve of the building schemes described in their report, and to adopt resolutions applying to the Local Government Board for their approval of such schemes, and for their sanction to the borrowing of the sum of £60,000 for the erection of the proposed buildings in Oldham Road, Cornwall Street, George Leigh Street, and Spittal Street, and of the sum of £50,000 for the erection of the proposed buildings in Chester Street and Pott Street.

THE number of applications received for the vacant post of Harbour Engineer at Dundee is 86. The final selection will probably be made at the ordinary monthly meeting on October 5th.

A NEW crane, with a lifting capacity of 25 tons, is being erected in the Queen's Dock, Glasgow, by Messrs. Chaplin & Co., Govan. In a few weeks the crane, which will be the most powerful in the dock, will be ready for work.

THE SCOTTISH NATIONAL PORTRAIT GALLERY.

PROPOSED DECORATIONS.

IN December, 1895, Mr. J. R. Findlay offered to present to the Board of Manufactures an additional sum of £10,000 for the purpose of decorating the Scottish National Portrait Gallery Buildings. In making this offer, Mr. Findlay indicated—first, that he desired that certain of the statues for the niches on the façade and at the ends of the building should be provided, exclusive, however, of such statues of historical personages as ought sooner or later to be supplied by representative bodies, or of whom there are existing family representatives; second, that some of the windows in the Hall and Ambulatory might be filled with stained glass, and that mural decorative illustration of Scottish history might also be undertaken; third, that the capitals and brackets in the interior of the building should be suitably carved. The Board accepted Mr. Findlay's gift, and appointed a committee to formulate a scheme. A report of the Architect of the Board, Dr. R. Anderson, having been submitted, the whole subject is now receiving the careful consideration of the Board. The following is what has been decided to be undertaken by the Board in the first instance on the recommendation of the committee:—That four of the statues originally suggested to be placed on the exterior of the buildings should be undertaken without delay by the Board at a cost of about £200 each, and that these statues should consist of George Buchanan, Dunbar the poet, James Watts, and David Hume. That all the carved stonework of the interior in the Hall and Ambulatory, which still remained unfinished, should be gone on with as soon as possible, and selected students of the School of Applied Art should be invited to make designs for this work, and the successful students to receive money awards. That the Ambulatory railings should be treated with some gilding, and that the shields in the centre of each panel should bear the arms of the members of the Board at the time the building was erected. That the dark rooms at the east end on the ground floor of the Museum should be painted with white paint to improve the lighting. Dr. Anderson proposes that the walls of the Staircase should be adorned by the introduction of a number of commemorative panels such as may be seen in the Bargello at Florence and other places in Italy and Spain. In connection with a proposal by the Architect that colour be introduced into the sculpture heraldry on the exterior of the building, the Committee thinks before coming to a decision in this matter that an experiment might be made by means of coloured paper on one or more of the shields to try the effect. With regard to the adornment of the walls and ceilings with decorative painting, the Committee approves of Dr. Anderson's suggestions—that certain artists named by him should be asked to submit sketch designs for historical subjects; that the students of the School of Applied Art should be invited to submit designs for the decorative treatment of the staircase ceilings; that the effect of gesso work should be tried on a small portion of the brickwork of the interior walls, but that no painting or similar decoration should be commenced until all the carved stonework in the Hall and Ambulatory is completed. As regards the stained glass in the windows, the Committee is of opinion that the possible introduction of some stained glass in the windows of the Hall and Staircases should be delayed until the character of the decoration of the Hall and Ambulatory is fixed upon and completed. It may be stated that the statue of Dunbar has been entrusted to Mr. Pittendrigh Macgillivray, and that of David Hume to Mr. C. M'Bride. It is understood that with this £10,000, the total sum expended by Mr. Findlay on the National Portrait Gallery is something like £63,000.

AT Copenhagen the death is announced, at the age of fifty-eight, of M. Julius Lange, Professor of the History of Art at the Copenhagen University. His works on Art have been translated into almost all European languages.

THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

The South Kensington Museum

AND THE

National Competition.

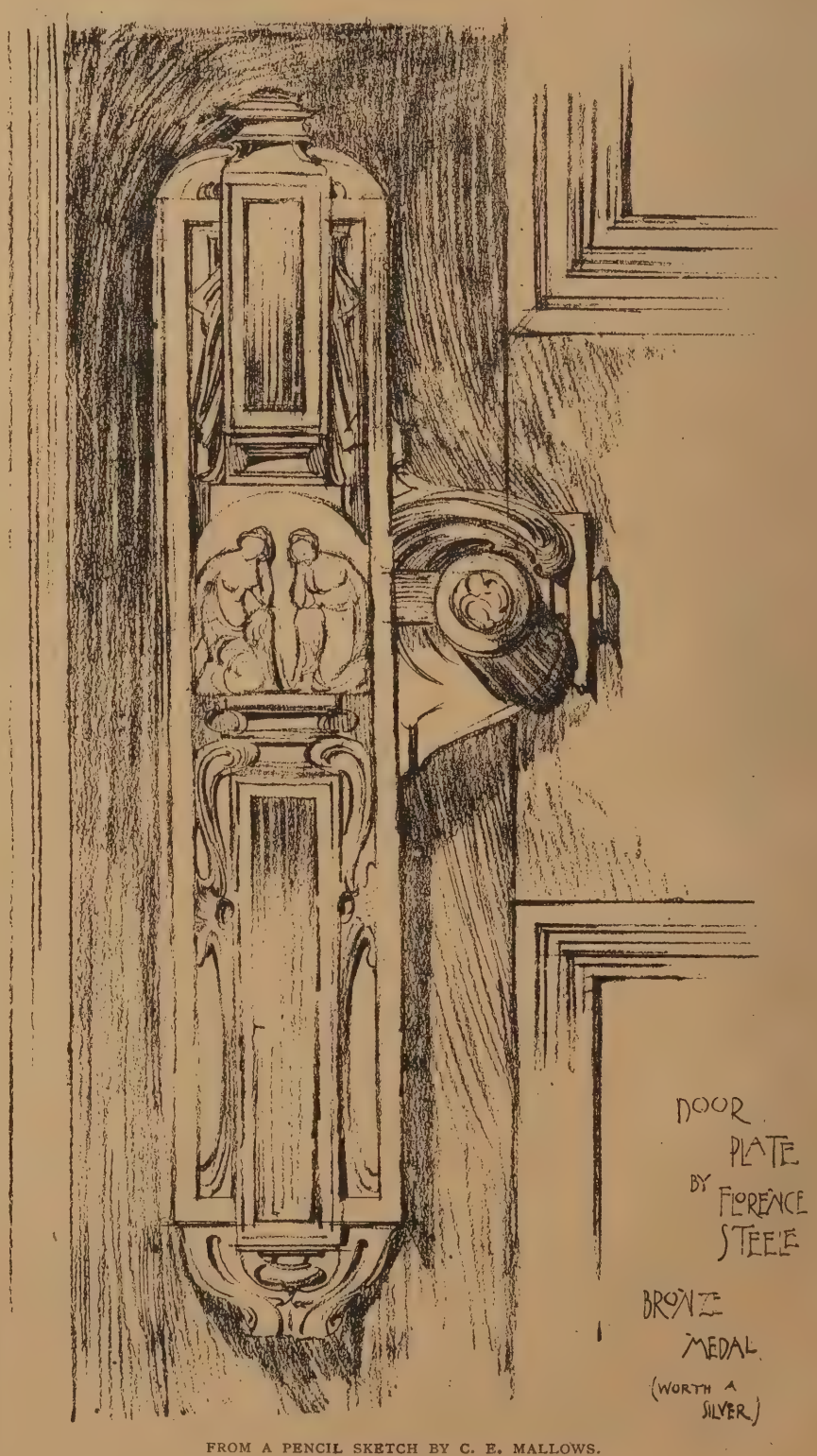
NOTHING could be much more satisfying than the extraordinary amount of enthusiasm provoked by our article in the previous issue under the above heading. We confess we were not prepared for a tithe of the encouraging support and promise of assistance we have received from different parts of the country, and from all sorts and conditions of Artists. From Architects, from Head Masters of Art Schools and from Students alike, the appreciation of our idea is most gratifying; it testifies at once to the keen interest taken in our proposed treatment of the subject (an interest most pleasantly disappointing to ourselves), and to the now practically assured success of the scheme we have in prospect and which we shadowly suggested last week. It may interest our readers to know that, as a direct result of the article, we have had over two hundred drawings offered us, all more or less relating to the Museum Collection, many of them most beautiful and all serviceable, which we shall use from time to time as the requirements of the scheme dictate.

Amongst the chorus of praise there is but one single note of criticism, and that relates to our reference to the absence of proper control from the authorities. The correspondent, the Head Master of an important provincial Art School, points out that it has been his custom for years past to give all the necessary advice as to study, and also to give a series of lectures on the Museum collections generally. We are very glad to hear it, and hope he has met and will meet with all the encouragement he well deserves. But, although we were well aware at the time of writing of other similar excellent examples, they are in reality only isolated and local ones; they do not in any way affect our main point just mentioned. Good examples in one or two cases here and there, however invaluable to the Students in these particular Schools, cannot, of course, reach the greater mass elsewhere, that can only be effected from South Kensington direct, it was, therefore, to head-quarters, and not to our friends the Art Masters, the criticism was offered.

We preface our remaining notes on the National Competition by saying that the exhibits will be dealt with in a distinctly novel way in our forthcoming Magazine, when the whole subject will be re-discussed and reformed into a controversial feature of the first number. We are now making arrangements by which the drawings illustrating it will be the best obtainable and the reproductions equal to the finest of to-day. Those Students, therefore, whose work is not noticed here, but who have gained distinction in the Competition and are otherwise worthy of special mention, will be duly recognised as just described.

The Gold Medal Design, which as already stated was by a student of seventeen, Peter McLauchlan, Glasgow, is a performance to be placed to his credit, and, as we said last week, is careful and thoughtful as a whole, but not quite equal to that by his competitor, D. Hislop, whose design has dignity of effect if a little unfortunate in some of its proportions. It is fairly-well drawn in pencil and colour, has some refinement, and is well thought out. Mr. McLauchlan scores a point, however, in sending a pencil perspective which this set is lacking, and which may have made the difference in the award. Mr. McLauchlan's pencil sketch is careless and not worthy of the subject, but the composition looks satisfactory in outline as there suggested. His "Tea-Room" design is much better altogether, and has a sensibly-treated front, and the detail is drawn with delicacy and care.

The Sketch Design for a Wayside Inn, by E. F. Reynolds (Birmingham), we wrote of last week, and this week we publish a perspective view drawn from the elevations. He deserves his prize for the simple and unaffected way he has treated his subject. It is cleverly handled, and delightfully rendered in pencil and wash, in which the colour effect is well conveyed. There is a notable absence of striving after effect so apparent in the more ambitious designs. The plan is artistic, and the whole design has the air of olden times. Mr. Reynolds must have had the best of advice in his studies generally, and we fancy we know its source. Birmingham is always fortunate in its teachers, and is probably the best Art School in the country. The other design by Mr. Reynolds is for a Cottage Hospital and is awarded a Bronze Medal. It is not equal to his other exhibit, but is nicely drawn and cleverly treated in parts. His plan, balanced and ingenious, shows rather an elementary knowledge of hospital arrangement.



FROM A PENCIL SKETCH BY C. E. MALLOWS.



SKETCHED BY C. E. MALLOWS.

F. G. Collins, Birmingham, wins a Book Prize for a similar subject. The plan has good points; the position of the wards is right, and the external treatment of that portion is the best of the group, the centre being somewhat tame.

William Haywood, Birmingham, has a National Silver Medal for a sheet of Designs for Church Fittings. They show well-thought-out notions for the subject, and pleasing arrangements of tracery lines. His constructional details would not work out satisfactorily in execution, but the bench ends are well designed, one, at least, takes a very agreeable and sturdy form of outline. The organ screen is much better treated in the detail than in the small scale drawing where it looks a trifle commonplace. The reredos is the most satisfactory part of the set, shows thought, and a desire to be original without eccentricity. It is nicely drawn in pencil, with slight washes rather timidly laid on.

Herbert T. Buckland, Birmingham, has a Silver Medal for an excellent design for a Cottage Hospital, very good in Architectural treatment and ably thought out in detail, although the Wards are not so well arranged as they should be. Non-isolation is a serious defect in Hospital planning. The author shows a photograph in the top left-hand corner of one of his sheets. The effect of this model is quite delightful. We shall publish a sketch of it in our New Magazine.

Mr. Swan's design for a Church has merit, and secures a Book Prize, which is a sufficient reward, the design being wanting in the qualities of refinement and breadth. It is not worthy of the author of the pencil sketches and of the measured drawing of the Skipper House at Ghent, which latter is admirable, and most serviceable for future reference and study.

Roland D. Rawcliffe (South Kensington), obtains a Silver Medal for measured drawings of portions of Rood Loft in Limoges Cathedral, France, and the same award for a design for a Church, which, although it shows some power of design, especially in the west front, and some careful study throughout, is, taken altogether, a little too pretentious, and some of its constructive faults are serious ones. The lettering and general get up of the drawings show lack of artistic sympathy.

on the landing. The external treatment, a simple and effective version of Renaissance, is excellent, and well expresses its purposes. The façade is nicely balanced, but a want of scale is apparent in the proportion of the side wings to the central feature, which latter, however, is excellent. The perspective view is careful and effective, but a knowledge of light and shade would have improved it immensely.

George A. Paterson, Glasgow, wins a Book Prize for a very artistic design, both in drawing and work. The subject, a Gallery Front and Screen, is treated in a fresh, reserved, and original manner, with slight German feeling thoughout. The colours are satisfactory, with the exception of the shadows, which are hard and unsympathetic. It is, however, excellent as a whole, and shows great promise in a student of 18. The effect of the design would be better explained by a perspective, in which we can imagine a nice effect of light and shade.

A Bronze Medal is given to Miss Alice B. Giles, Lambeth, for her delightful design "The Pied Piper of Hamelin." There is evident so much charming fancy, sense of colour and of line, combined with genuine decorative effect, that we think her design deserved something very much better than a bronze medal, in spite of the unfortunate perspective and the curious Architecture of the Bridge. This is such a lively and bright sort of plate that we returned to it again and again with pleasure.

Thomas C. Overnell, South Kensington, shows some good designs for programme covers and book decoration which well deserve the Bronze Medal awarded.

The Silver Medal given for the same subject (by George Montague Ellwood), is



SKETCHED BY C. E. MALLOWS.

Albert Bradshaw, Nottingham, well deserves his Bronze Medal for a good design for a Public Library. His plan is well arranged generally, the Lending Library and Reading Room being placed conveniently on the ground floor and well lighted. The Reference Library, Book Store, Ladies' Room, &c., are planned over and fairly well considered, although some waste space occurs

better drawn, and shows a good deal of invention and a faculty for placing and balancing blacks which is very satisfactory. Some portions, however, have a a tendency to be hard and mechanical.

Florence M. Homewood wins a Bronze Medal for a fanciful and well-drawn illustration to Longfellow's Golden Legend. It illustrates the verses referring to Lucifer's

attempt to tear down the Cross of Strasburg, and the idea is well suggested and carried out.

Florence M. Homewood has a Book Prize for some good designs for tailpieces.

H. M. Brooks' wins a National Bronze Medal for some careful drawings in which the Architecture should have been carefully studied.

Ethel Dobbin, Nottingham, wins Bronze Medal for the "Heart of the Rose Unopen," which is gracefully and delicately drawn.

"The History of Modern Painting" has a very good cover design by John E. Hardy, for which he obtains a Book Prize. The decorated arrangement of line is good, but we hope he will have an opportunity of re-arranging the date and volume number, which are stiff in position, and destroy the repose of the whole design seriously.

inadequately rewarded with a Book Prize for her charming invitation card, bright alike in fancy and in colour, and Celia A. Levetus, Birmingham, has the same prize for some excellent illustrations, apparently for children's tales.

In the Class of Colour Design the work of Henry Edgar Crockett wins distinction and a National Silver Medal for a set of four really beautiful colour sketches, on brown paper. The subjects are: "The Sleeping Beauty," "St. George and the Dragon" (2), and "A Pastoral." Of these, we like the slightly and effectively drawn "Pastoral" the best. It is quite gay with movement, colour, and life, and the figures are most daintily and delicately suggested. All these subjects are for long and narrow horizontal panels.

The upright panel, by Henry A. Payne, Birmingham, called "Song," is a very harmonious arrangement of colour and excellently well drawn. We believe it is intended for the decoration of the Birmingham Town Hall, and is presumably a study for the subject.



SECTION

A DOOR KNOCKER BY ELEANOR MERCER.

SKETCHED BY C. E. MALLOWS.

The "Toilers of the Sea," and "Don Quixote," by Alfred Jones, are masterly in arrangement, drawing, and design, and easily first amongst them all. Nothing could be much better than the simplicity of *technique* and of handling; they are very able drawings and show promise of considerable power.

Miss Winifred Smith, of Birmingham, who gained the Gold Medal last year, is this year

A Silver Medal award is also given to Joseph Ogden, of South Kensington, for an able ornamental design, able, that is, so far as the figure and decoration is concerned, but the Architecture is poor and weak.

A Bronze Medal is given to Catherine Whitworth, of Leicester, for a design for an Embroidered Altar Cloth, which shows a capital combination of colours and pliant decorative arrangement, but the figures are out of proportion.

AN IDEAL PRESIDENT.

IN a letter to the "Times" upon the Royal Academy and Craftsmanship, the writer, referring to the necessary qualifications of a President of the Royal Academy, says "that sufficient stress is not laid on the advantage to be derived from the possession of a wide sympathy for artistic crafts as well as for painting, sculpture, and Architecture. The work of the sculptor-goldsmith has found its way into the Winter Exhibitions at Burlington House and has been appreciated by the public. In the recent Academy Exhibition Mr. Gilbert's St. George, the enamels of Mr. Fisher and of Nelson and Edith Dawson, and the silver work of Gustave Natorp, F. Lutiger, and others have added greatly to the attractiveness of the Lecture Room. The admission of certain crafts to the Academy Exhibition has been tried on an experimental scale and has proved successful. With a President in touch with the Crafts as well as with the Arts it is probable that the experiment would be tried on a larger scale, to the great advantage, not only of the Academy Exhibitions, but also of the artistic industries of the country. It is needless to point out how great a relief would be given to the monotony of succeeding vistas of paintings in the Academy Exhibitions by a few cases devoted to craftsmanship. The advantage to artistic industries would be two-fold. Manufacturers and craftsmen would be encouraged to produce objects of intrinsic beauty—not necessarily for sale. The Academy, by selecting and exhibiting objects of merit, would gradually educate the public taste and develop a demand for good craftsmanship rather than for novelty and smartness. At the present time the very existence of craftsmanship is threatened. Apprenticeship is virtually dead, and workshop tradition is dead. To make matters worse, an interested cry is being raised, and was heard at the recent Congress of International Workers, to the effect that young persons must not be employed in industries until they are 16, and consequently too old to learn a craft. Technical education has been suggested as a substitute for apprenticeship and workshop training. Technical Institutes and Polytechnics are being founded in considerable numbers and at great expense, under an erroneous belief that if young persons devote a few hours to art and technological classes they can be transformed into artists and craftsmen. Art and technical classes cannot create artists and craftsmen, but they do produce a large body of disappointed amateurs, for whom there is no demand and no work. If the Academy can grasp the fact that the Art of the nation is not confined to Painting, Sculpture, and Architecture, and will recognise that her crafts have some small claim for sympathy and consideration, it will do more for the encouragement and development of craftsmanship than the most elaborate system of technical education."

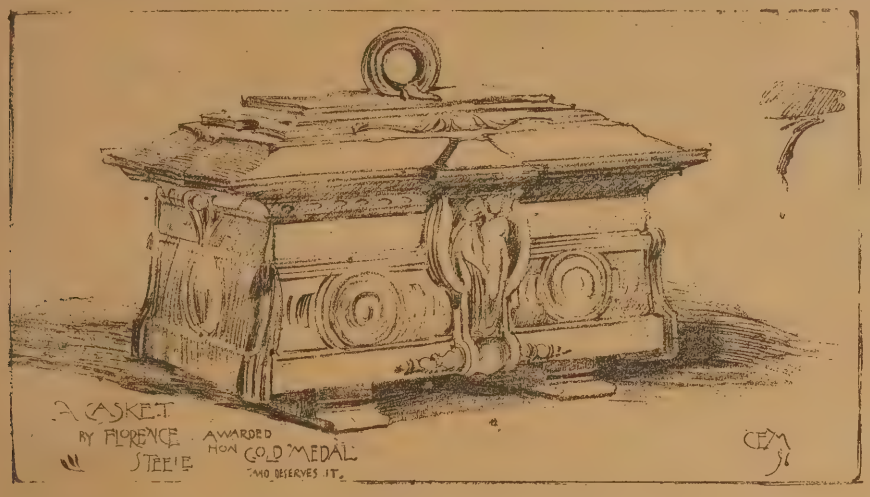
Two very large express locomotives have been turned out of the Gateshead Works of the North-Eastern Railway, from designs by Mr. Wilson Worsdell, the locomotive superintendent, which are specially notable from the fact that the driving wheels are the largest coupled ones in the World.

ANOTHER addition has been made to the objects of interest in the city of York. Five pieces of artillery, captured by the British forces during the recent Burmese expedition, were recently sent from Portsmouth, being a present to the city from the War Office. They comprise three muzzle-loading and two breech-loading guns, the respective weights of the former being as follows:—1 cwt. 1 qr. 18 lb., 1 cwt. 7 lb., and 3 qr. 26 lb. The breech-loaders weigh 6 cwt. 13 lb., and 6 cwt. 7 lb. The pieces are culverins, one measuring over 6 ft. in length, and they are of a type used in bygone days in naval warfare.

BELFAST CATHEDRAL.

EXHIBITION OF THE DESIGNS.

IT is generally known that the site chosen for the new Cathedral is to be that occupied at present by the Parish Church of St. Anne's, in Donegall Street, on which formerly stood the Linen Hall of Belfast, in what was then known as Linenhall Street. The drawings which are now on exhibition in the Free Library are by Messrs. Thomas Drew, and W. H. Lynd. The first instalment of the contemplated operations will represent an expenditure of £30,000. There is no doubt that a complete Cathedral should consist of three great divisions—viz., Arcade, Triforium, and Clerestory; and that its parts should be Nave and Aisles, Choir and Aisles, Transepts, and one or more Towers. The general aspect, according to the design, is simple and unaffected; ornament is sparingly used, and the dominating feature is the Central Tower and Spire, to which the other portions lead up the eye, producing a very effective composition. The drawings show the ground plan; the transverse section through the Nave looking east; a perspective of the interior also looking east; and there is in addition a perspective from the west end showing the Tower over the intersection of the Nave and Transepts. The former two are Geometrical, and are well executed in Indian ink, the section being also tinted. There will be no high Choir Screen, the Architects having decided upon a simple septum similar to that in the



FROM A PENCIL SKETCH BY C. E. MALLOWS.

CATHEDRAL AT FLORENCE.

The edifice comprises a Nave and Aisles, about 70 feet in width by about 125 feet in length, to the Screen of the Choir. On each side extend Transepts with Aisles, the width of the Cathedral at this point being 130 feet internally. The Choir is seated with stalls, affording accommodation for the diocesan clergy and the choristers. Above the Choir will be a lofty lantern, forming the lower portion of the Tower. The Pulpit and Lectern occupy respectively positions at the bases of the great piers of the Tower facing the Nave. It is on the south pier, at the east end of the Choir, that the Bishop's Throne is placed. The Chancel extends about 50 feet, having at the back of the Altar an Ambulatory, thus affording complete access around the walls of the interior of the Cathedral. The organ is located on the east side of the north Transept. The front Porch, which is deeply recessed about 14 feet, with angle columns at each side, has a central division at the doorway. The west front is flanked on either side by octagonal Turrets, terminating in steeply-pitched stone roofs. On the north side is placed the Baptistery, which is about 15 feet square, approached by a moulded archway in the north Aisle. On the corresponding side in the south Aisle is the Galilee Porch, which should form a striking feature in the composition. It has a deeply-recessed doorway, liberally groined ceiling, and arcaded walls. At the angle of the Nave and south Transept is a groined passage to the Vestries and Chapter House, which are not included in the work to be carried out at present. From the section we gather that the Aisles will be groined in stone. The Nave will also have a similar ceiling, and for the purpose of resisting the thrust caused by the great weight thrown by stone-groining massive buttresses are placed on each pier, with flying buttresses above. The roofs are of steep pitch, and will probably be covered with lead and have ornamental parapets, with gutters behind. The Nave will be of fine proportions, the height from the floor to the top of the groining being 63 ft. The Chancel arch is of equilateral form, resting on responds with carved caps and richly moulded zones and bases. Of eight lights, at least 40 ft. high, the east window consists. The height is filled in with tracery of Geometrical design. In the Choir four rows of stalls are arranged at each side. The platform of the Altar is elevated six steps above the pavement of the Nave. The Screen at the back of the Altar, and immediately under the great east window will be richly arcaded and filled with tracery. Behind the Altar is placed a bas-relief of the picture representing "The Last Supper." A feature of the exterior of the Cathedral is the large and well-proportioned Tower rising in the form of one of the early Perpendicular Towers associated with some of the old English structures. The belfry windows in the Belfast Cathedral are to be of great height, with large louvres. At the four corners of the Tower rise octagonal Turrets, terminating at a considerable height above the parapet in richly crocketted steeples. A wheel-window fills the space immediately above the doorway of the West Front, which is of Geometrical design, and surmounted by a narrow Gallery, behind which is some arcading. The gable terminates at a height of over 100 feet with a carved Celtic cross. As to the flanking Towers, they rise a few feet higher, with steep octagonal stone roofs. On the site of the old Rectory in Donegall Street, at the corner of Talbot Street, is shown a building of ecclesiastical appearance, we presume a Chapter House, to which it is connected with a passage. There is to be a Crypt, which will add to the dryness of the entire building, as it is well known that foundations are wet in this portion of Belfast. Lighting will be by means of traceried windows.

A GRANITE monument to Mr. Hugh Brown, the Queen's late Highland attendant, has been erected over his grave in Crathie Churchyard. The inscription at the base of the monument is as follows: "In loving memory of Hugh Brown, Highland attendant to Queen Victoria for seven years. Eighth brother of John Brown, the Queen's personal attendant. Died at East Lodge, Balmoral, March the 29th, 1896, aged 57 years."

AT Stromness the Harbour Commissioners have purchased what is known as Murray's Pier at the price of £1,000, and they are negotiating for the purchase of the Warehouse Pier and stores, the object being to dredge, deepen, and otherwise improve the harbour. The plan includes a roadway along the beach from Murray's Pier to the north end of the harbour. The improvement works, exclusive of the price of the Piers, are estimated at £12,500.

COMPULSORY LABOUR INSURANCE.

IN Switzerland a curious experiment is being tried with a system of insurance against want of employment. In this country we have such voluntary means of insurance as are provided by Trades Unions, Friendly Societies, and Savings Banks. In Switzerland, where Trade Unionism has not flourished, they are trying what can be done by legislative measures, optional or compulsory. There is a compulsory system already established in the town of St. Gall which has a population of between 20,000 and 30,000. An Industrial Insurance Fund is managed by the Municipal Council. All male wage-earners resident in St. Gall whose average earnings do not exceed 3s. 11½d. daily, are bound to belong to the fund and pay premiums graduated according to the amount of their wages. The better paid workers can join or not as they please. Apprentices and labourers under age in receipt of less than 1s. 7d. daily, are exempted, and persons already belonging to a voluntary insurance organisation are not compelled to join. But, with the exceptions thus indicated, the scheme is compulsory on all the male wage-earners who receive 3s. 11½d. or less per day. Having paid the premiums, the workman when out of employment is entitled to relief for a period of not more than sixty days in any one year. If he is out of work through his own fault, or by a strike, or if, being able-bodied, he declines to take work suited to his position and capacities when it is offered to him, then the relief is withheld. Otherwise he gets a fixed payment, higher or lower according to the class of premium he has contributed. The number of persons insured up to June of the present year has been 4,200. According to this scheme the danger of actual destitution through ordinary failure of employment in St. Gall ought to be reduced to a minimum or extinguished altogether. Yet it is stated that the working classes of St. Gall have not taken kindly to the scheme, and that compliance with the law now is understood to be not cheerful but grudging. We are not told whether their objections are to the practical working of the compulsory principle, or to such details as the limitations on the amount of relief. But when we learn that non-payment of premiums is punishable with fines or even imprisonment, we may hazard the guess that some of the St. Gall workmen find this concrete form of Socialism rather irksome. As to the benefits of the scheme, while the relief is considerably less than the wage, yet the working classes get a good deal more out of the fund than they put into it, the balance, of course, representing the contribution of the community. The revenue from the premiums is stated to be small as compared with the calls made upon it, more especially in winter, and the fund therefore has to rely to some extent on auxiliary sources of income, of which the chief is a municipal grant-in-aid. There could be no objection to such a grant, assuming the scheme to be properly administered. In Glasgow the public willingly subscribed a considerable sum to meet the exceptional distress of last year, and a regular grant would simply take the place of such exceptional voluntary contributions whether from the public or the Common Good. A scheme which really settled the problem of distress through want of employment would be hailed with general thankfulness.

AT Liverpool, the Masonic Arms Hotel, Lark Lane, with two small shops adjoining, was recently sold by auction for £28,200. The property is freehold, but as the reserve price was only £12,500, it is an instance of the fictitious value placed upon licensed property.

BARONESS BURDETT-COUTTS recently laid the memorial stone of a new School connected with the Westminster Baptist Chapel, Romney Street. The Church itself was built in 1828, but the Sunday School work has been carried on under difficulties in the Gallery of the Chapel, which cost £1,600 to erect. The Church cost £3,600. The new edifice, which is estimated to accommodate 250 children, will cost £1,000.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
September 2nd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

THE old inn which Mr. Ruskin mentions so tenderly in the pages of "Praeterita"—the Old King's Head at Croydon—will shortly be pulled down. It stands facing the open space of Market Street, and until recently under the shadow of the hideous old Town Hall that has just given way to the new municipal palace of this go-ahead borough. The Old King's Head is quite a humble building, although of a respectable age, and somewhat dignified by reason of its dormer windows and deep-eaved roof. A succession of occupiers during the last fifty years have done something to vulgarise it by converting its front into the likeness of an ordinary public-house, and by the addition of great sign-boards.

A CURIOUS discovery was made by some workmen while making excavations at the rear of the Rose public-house, in the Old Bailey, almost immediately opposite Newgate Prison. A few feet of earth had been removed when a bricked waterway some 8 ft. deep by about 6 ft. wide, with an arched roof, was revealed. The stone of which the walls and roof are built are most roughly put together, and are evidently of great age. It is inferred that the opening is part of a long disused conduit which at one time ran into the Fleet River. There is an inlet at one side, through which water entered from another conduit. The existence of other buildings precludes the possibility of tracing the conduit to its end, but there is little doubt that it is part of one of those curious underground waterways, of which there formerly existed many in this part of London.

EXTENSIVE structural alterations have within the past few weeks been in progress in the Offices connected with the Mansion House Justice Room, the object being to secure increased accommodation and to facilitate the transaction of the business. The works, which are being carried out under the supervision of the City Surveyor's Department, Guildhall, are fast approaching completion. The principal feature in the alterations is the providing of a new room, situated in the basement of the Mansion House, for the taking of affidavits, declarations, and other documents, to which the signature of the Lord Mayor or an Alderman is required. The old Affidavit Room has been converted into an Office for exclusive use in connection with the ordinary business of the Justice Room. The alterations will add greatly to the convenience of the public and of the officials of the Court.

MOTOR carriages as at present designed are very far from perfect. The vibration reminds one of the earlier days of the torpedo boat. Added to this, most of the cars leave behind them a fume of burnt oil which would almost suffice to trace their course by the sense of smell alone. Until these and other defects have been surmounted, the motor car is little likely to become a popular favourite, though no doubt the very great concessions made by Parliament will do much to stimulate inventors. In particular, the placing of the limit of speed as high as fourteen miles an hour went further than the most sanguine had dared to hope, considering that motor-driven tramcars are limited by the Board of Trade to a speed of eight miles per hour. It is true that the speed in question is only permitted in the case of cars not exceeding three tons in weight, but, even so, it is very much too high, except, perhaps, for the very lightest motor tricycles.

M E. REVIERE, the well-known anthropologist, has discovered, in the Department of the Dordogne, a new and important prehistoric cave, the walls of which are covered with drawings of animals. The caves of the Dordogne have for some years been noted for their relics of a very early race of men. In that part of France the river valleys are cut rather deeply into a limestone plateau, and their precipitous walls are often pierced by caves. These were occupied as dwellings by a primæval race. It was their habit to throw the bones from their food upon the floor, where they still lie, mixed with fragments of rock. In this refuse on the floor, which is often cemented by a calcareous deposit into a solid mass, many relics of that prehistoric race have been found. Among them are numerous weapons of stone, most commonly of flint. Besides these are needles and prickers, arrow-heads and barbed harpoons, of bone. Pieces of antlers, of bone and of ivory, are carved into different forms and ornamented with sculpturing; patterns and figures also are occasionally scratched on bits of stone. The special interest of M. Revière's discovery is that he has found some kind of incised ornamentation upon the actual walls of a cave. Both the objects depicted and the material employed throw considerable light upon the condition of Western Europe at this early age. The antlers of reindeer are commonly used for tools and ornaments, and the bones of this animal abound in the *débris* on the floors. Obviously, it must then have been as common in Perigord as it now is in the extreme north of Asia or America. But the most interesting sketch of all is a fairly accurate and rather spirited outline of a mammoth, scratched on a piece of a tusk—these figures sometimes are actually sculptured as if to form the handles of knives or of tools of some kind, but in other cases, as in the last-named, they are incised on the flat or curved surface of a bone or of an antler.

AN interesting letter from Mr. Saml. E. Lees upon the subject of wood paving appears in a daily contemporary. He says:—"It has surprised me that the London authorities should have adopted the use of soft wood for their thoroughfares. As Mr. S. McSweeney says, 'there are blocks down in Sydney sixteen years' (they have been down seventeen years) 'with ¾-in. joints, that taken up and relaid with close joints will last for the next twenty years or longer.' That is true, and had they been laid with close joints originally the work of taking up and relaying would not require to be done for the next four or five years, the grouting between the wide joints causing the edges to fray and work off. These woods used in Sydney cover over sixteen miles of road, some of which are 100 ft. wide, and they consist of iron-bark, black-butt, tallow-wood, red gum, and other hard woods. In the cases of wide joints (which are now abolished), during my term of office as Mayor of Sydney—1895—there were many sections taken up, and they were reduced in depth by cutting an inch off the worn surface, and relaid closely. The wood is sound, sanitary, and as good as at first—with a promise of a twenty or a twenty-five years' life added. These operations were done very cheaply, as the concrete foundations are sound, and the cutting by machinery and retarring of blocks, together with the labour of relaying, are done by contract. Australia could supply all the hard wood required for wood paving, builders' girders, railway sleepers, joists, or any other purpose. The paving blocks will stand cutting down more than once."

AN Exhibition of the Royal Cornwall Polytechnic Society was opened last week in the Polytechnic Hall, Falmouth. In the Oil Painting department there is an absence of figure work, and it is equally a matter for regret that some of the better known artists have not sent a few examples of their work. Very few examples of amateur work have been sent in, and the Black and White work is also somewhat disappointing. The Ornamental Art department is well sustained. A variety of work comes from Charles A. Eva, of Penzance, including modelled design for a door knocker, in cast and pierced brass, carved stone boss, oak-string course, panel, Flemish Renaissance, set of designed borders, &c. Gertrude Cox sends a piano back and satin panel for wall decoration. From Barbara E. Hext, the committee has received door of a grandfather's clock in oak; while M. A. Anderton sends an excellent carved spinning chair and chip table. Towering above the other exhibits is a massive limewood mirror frame, which will be admitted a bold piece of work. This comes from Rashleigh and Pinwell, of Plymouth. Miss E. D. Cooper again exhibits some choice bits of carving, including five panels. Modelled designs for tiles come from Walter M. Barnes, and a marble bas relief, "Cupid Singing," from F. Massey. The Industrial Class at Newlyn is responsible for eight items, ranging from a repoussé casket to a tea tray and inkstand. So far as Mechanics are concerned, they fall numerically below the average, but there are several items of importance, notably those sent by Cox and Co., of Falmouth, the Expanded Metal Company, Limited, E. T. Newton and Sons, C. Lindley and Co., and W. Brenton. Electricity is but badly represented. The Expanded Metal Company have a stand showing samples of stiff lattice, worked out of a single sheet of metal, to a coal dresser or ore beater.

IT is with much regret that we record the death of Mr. William Dyer, the well-known picture-restorer, which occurred recently at his house in Camden Road. Mr. Dyer, who was seventy-four years of age, had for the last fifteen years had charge of the pictures in the National Gallery, as well as those in many of the best private collections. In early life he worked for the late Mr. Farrer, the Bond Street dealer, but afterwards had a business of his own, first in Orchard Street and afterwards in Mount Street. Of the many important pictures which he cleaned, it is enough to mention two—Sebastiano del Piombo's "Raising of Lazarus" and Holbein's "Ambassadors," and in both these cases, as in very many others, the delicate operation was accomplished with great skill and caution.

THE Duke of Norfolk has purchased a site for £13,000 on which it is proposed to erect a Roman Catholic College at Oxford. It is about three acres in extent, and is within a short distance of Mansfield and Manchester Colleges, the Racquet Courts standing upon it at the present time. This College will be in addition to, and quite distinct from, the Hall under the auspices of the Jesuit Order. The Hall marks the first instance of a return on the part of the religious orders to their former connection with Oxford, and the proposed new College will hold a corresponding position in regard to the action of Roman Catholics in general in regard to the University. Considerable agitation with reference to the question has been carried on for some years among the Catholic laity. It is stated that before the commencement of the Michaelmas term the Catholic bishops intend issuing a joint letter of instruction with reference to the recently-granted permission. One of the provisoes is the appointment of a chaplain for each University.

SIR JOHN MILLAIS' house is said to be one of the most beautiful in modern London. A few years ago the wealthy artists entered into a noble rivalry in house building and decoration. Lord Leighton's Art Palace, like Sir John Millais' and some others, were the topics of their day, but Leighton contrived to put more Art into the scheme of his mansion, and Sir John Millais, being a family man, went necessarily into more domestic details. But each home was very beautiful. Sir John's Entrance Hall was a dream of beauty in decoration, in mosaic floorings, columns, marble dados, and marble staircase. Mr. Alma Tadema, Mr. Hubert Herkomer, Mr. Goodall and Mr. Poynter have all lovely town houses, in which the artistic mind of the occupant is seen in the construction and embellishment. The late P.R.A. also maintained a lovely establishment at Dunkeld. He was for many reasons fond of Perthshire.

CONSIDERABLE interest has been aroused in Hampstead by the proposal to convert the well-known chalybeate well in Well Walk into an ordinary drinking-fountain. The well, together with six acres of common land, then part of Hampstead Heath, was granted to the poor of Hampstead in 1698 by the Countess of Gainsborough. In the last century the water had a reputation for medicinal value higher than any other spring in England, and through that and other wells in the neighbourhood Hampstead became a famous "watering place." Its popularity gradually declined, and though the old Assembly Room in connection with the wells is still standing as a private house, the Pump Room, after being used successively as a Chapel, Drill Room, and a School, has been pulled down. The spring has, however, up to now, still provided a certain amount of water of some medicinal value, and it has been accessible to the public through a fountain erected in Well Walk, Hampstead. The supply has gradually diminished, almost to vanishing point, and it is proposed now by the trustees of the charity to lay on a supply of ordinary water, at a cost of about £30, and cut off the supply from the spring. It is, however, alleged that the spring has simply been diverted (probably into the sewers), and that this is the sole reason for the failure of the supply. An attempt to save the well from the proposed alteration is being made, and the Hampstead Vestry is considering the advisability of taking action in the matter.

IN Paris the British Embassy has been installed since 1815 in the Mansion 39 Faubourg Saint Honoré. It was bought by the Duke of Wellington upon his arrival in Paris for the British Government, and it had belonged to the Princess Pauline Borghese, whose property it was at the accession of the First Empire. The Mansion—Palace is a better name—was bought for £24,000; it is worth to-day, perhaps, £160,000. L'Hotel Borghese was, in 1814, situated in what was called in those days "le quartier des Maréchaux"—a fact that is accounted for by the names of the tenants of the surrounding residences. Suchet's house was at No. 31, Faubourg St. Honoré, and Joseph Bonaparte had lived there in 1800. Marmont lived at No. 45 of the same street, in the Mansion built by the Marquis de Brunoy; at No. 47 dwelt General Beurnonville; Marshal Sebastiani had his "hotel" at No. 51. Moncey lived in 1812 at No. 73; Sérurier lived just by, at No. 8, of the Rue Boissy d'Anglais, and Junot was his neighbour. The Emperor of Austria stopped in the Hotel Borghese during the occupation of the Allies for a time in 1814. It is, together with the Palace of the Elysée, the oldest building of the Faubourg, and there was a house there, as may be seen on Delagrive's map of 1728, when the rest of the neighbourhood appears to have been nothing but a park. It is famous for its splendid salons and its vast "Galerie du Trone," and was constructed at the end of last century upon the plans of the great Architect, Mazin, for the Duc de Charost. Under the Empire "l'hotel de Charost" fell to the younger sister of Napoleon, the Princess Borghese, who furnished it according to the taste of the time. Its decorative features have not suffered displacement; it presents a perfect type of the First-Empire style, and it has acquired an inestimable value from the circumstance. It also possesses marvellous mantelpieces and fireplaces, of which the bronze-work, admirably embossed, reproduces the Imperial emblems. The interior of the house best deserves attention. The Vestibule is a vast apartment, with walls panelled in marble, and leading at its farther extremity to a monumental staircase. The whole of the frontage towards the Champs Elysées is taken up by three symmetrical and similar salons, and they are supported to right and left by two long galleries, which run the length of the wings of the house. The one leads to the Salle à Manger, the other to the Ball Room. These twin corridors, panelled with marble, open upon a verandah which encloses a sort of courtyard that one has to traverse in order to reach the garden.

THE last words of Professor Middleton concerning the South Kensington Museum appear in the annual report of the Science and Art Department, which has been issued during the last few days. It is rather pathetic to find, in view of the generally admitted difficulties which he had to contend against, that his last official utterance was practically a lament over the national parsimony and a protest against the manner in which his hands were tied. He wrote that he could not "refrain from again urging the necessity of more space for the proper exhibition of the Museum collections generally;" and he expressed the opinion that these collections "are much too crowded at present, and so cannot possibly be seen to advantage." What is the use of a Museum which is so limited in space that its contents "cannot possibly be seen to advantage" it would be hard to say; and it would be even more difficult to explain on what principle a really eminent man was engaged to direct that Museum if it was an essential part of the official policy to consistently disregard both his opinions and his advice.

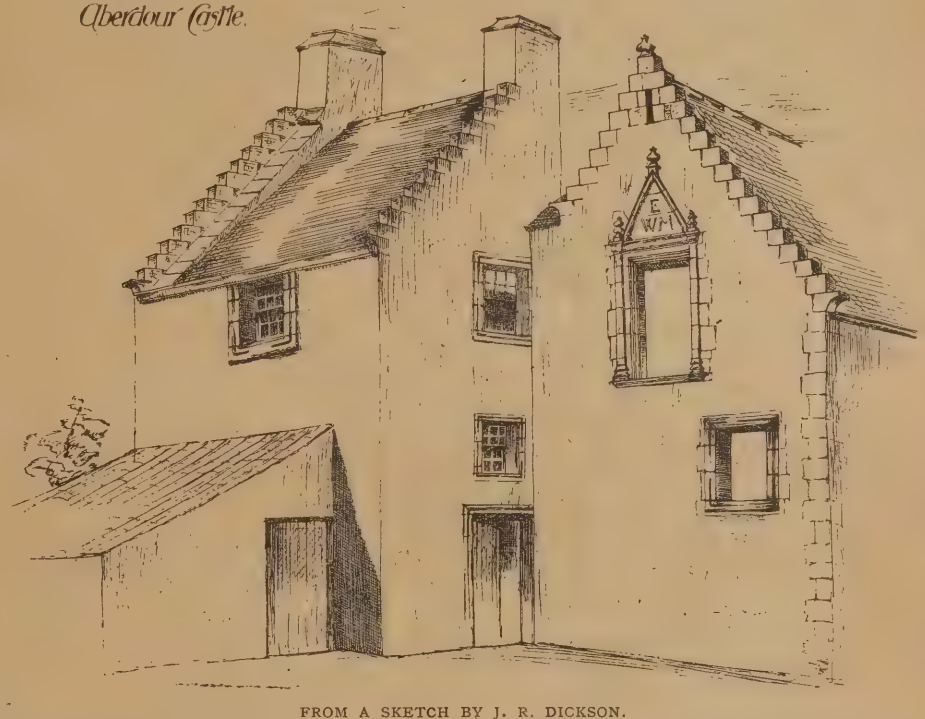
AT Leicester last week, Colonel Hasted, on behalf of the Local Government Board, held an enquiry into two fresh applications of the Corporation. One arose from the proposed exchange of land in the Victoria Park Road. The other to enable the Corporation to borrow £15,500 in order to construct the proposed Newark Road Bridge. On neither point was there the slightest opposition, and it may accordingly be assumed that the requisite sanction will be conceded in due time. In the course of his explanation, the Town Clerk made the announcement that the Corporation had no intention to pull down the Old Newarke Gateway, and would accordingly make their roadway round it.

MR. C. B. FOWLER has made further interesting discoveries, while excavating for the laying of a drain around the Tower of Lanblethian Church. An effigy tomb was removed from inside the Church, and made to act as a foundation to support the south-west Tower buttress, when the Tower was added on to the Church about the latter end of the fifteenth century. The sepulchral slab is of Sutton stone, 4 ft. 10 in. in length, and 1 ft. 9 in. in width, of thirteenth century character, very similar to the tomb in the Church at Llantrithyd, viz., a civilian recumbent, with hands folded in prayer, at the feet of a greyhound. No doubt this tomb formed a portion of the recessed arch which was recently brought to light in the south wall of the South Chapel over the Crypt, where the 300 bodies were found as described in a recent issue. About a foot below this tomb is the base of a stone Altar. The tomb has been removed and placed in the arched recess—no doubt its original position previous to the time when it was wantonly removed and built into the Tower foundations. It has not suffered much from being buried for over four centuries and supporting many tons weight.

A MUSEUM of costumes is about to be opened in Berlin, with a view of showing theatrical managers how to avoid anachronisms of dress on the stage. In the present state of theatrical enterprise, and—in justice it must be added—of the public taste and intelligence, the danger in this country is rather in the direction of a too cramping exactitude than in any archæological looseness or inaccuracy. With us, for many years past, no theatrical production of importance in which the time or clime has been other than our own has taken place without the avowed assistance of experts of the first eminence. The names of Godwin, Lewis Wingfield, Seymour Lucas, and Alma Tadema are guarantees of the reverence with which detail of the kind has been watched. Indeed, if any inaccuracy or inconsistency is detected in a modern play, it is generally safe to assume that it has been allowed to remain for the sake of the artistic effectiveness of the scene.

IT is not everyone who admires Lord Grimthorpe and his weakness for restoration. Thus a contemporary:—"I have not seen Lord Grimthorpe's plans of restoration in connection with the famous old Church of St. Michael's at St. Albans, but I think every archæologist will regret that the historic Tower of the Church has been pulled down to make way for a new edifice. Lord Grimthorpe is the restorer of St. Albans Abbey and many other Church edifices, and his enthusiasm as a restorer has led him to spend a large sum of money on his whim. On this part of his labours I need not speak; but it is nothing short of vandalism to pull down this old Tower. The Church is 1000 years old, and is older than any part of St. Albans Abbey. The Tower was a fine, characteristic, square structure, and it stands upon the foundations of a previous building which was unquestionably laid by Roman hands. In the opinion of some archæologists, these foundations were the remains of a Roman Temple which, in time, became converted into a Christian Church. That, however, is a matter of mere speculation, though it would be quite in keeping with the spirit of the times to extinguish the memory of the old Temple by the erection of a Temple of the new faith over it. The Church is, of course, associated with all the history of St. Albans, and as a massive piece of Saxon work, so solidly and well put together that the fabric has not needed the hand of many restorers since Saxon times."

Aberdour Castle.



FROM A SKETCH BY J. R. DICKSON.

THE Queen has granted Bushey House to the Duke and Duchess of York, who were offered the Stud House, in the Home Park, Hampton Court, after the death of Sir George Maude. Bushey has good gardens and grounds, and the house is comfortable and well-arranged in the old-fashioned style, and not too large. George III. granted Bushey to his son, the Duke of Clarence, who made the place his principal residence until he came to the throne in 1830. It was then given to the Duke of Sussex, but it was taken away again from him, being wanted as a dower-house for Queen Adelaide. From 1837 Bushey was occupied by the Queen Dowager, and when she died, in 1849, it was granted by the Queen to the Duc and Duchesse de Némours. The Duc d'Alençon keeps the place until the middle of October, when extensive repairs and alterations are to be carried out by the Office of Works.

AN interesting relic of an old Scottish saint, St. Fillan, and his time, has just been rescued from the privacy of a private collection and placed in a position where it may be seen and reverenced by a larger public. This is the old holy water font of the ancient Chapel of Dundurn or St. Fillan's, which stood to the west of the Saint's own hill—Dun Fillan—in a field on the south side of the Earn, not far from where it issues from the Loch. Of the old Chapel and its appendages, built by the Saint, nothing is now known to exist save this round stone basin. On the site of the Saint's Chapel another was built three hundred years ago, and for generations the holy water font lay upon the sill of one of the windows. When this second Chapel was unroofed several years ago, the stone basin was taken charge of by Col. Stewart, of Ardvorlich, who has now handed over the old stone basin to the Parish Church authorities, and it is to be used as a baptismal font. The stone, which is 13 in. in diameter by 7 in. deep, is a roughly hewn piece of whin, shaped like a large curling stone. On the top is a cup which is 6 in. across by about 3 to 4 in. in depth. The basin has been set on a wrought iron pedestal, the gift of Mr. Duncan Macara, The Oaks, St. Fillans. The pedestal has a heavy base, a pillared plinth with spirals, and, for holding the stone, a bracketted top, adorned with oak leaves, thistles, and wild roses.

THE Board of Works Department has discovered serious dilapidations in the ornamental stonework upon the façade of Somerset House. It appears that the well-known coat-of-arms which tops the frontage to the Strand, together with the four huge figures in Caen stone that decorate the building, have been found to be rapidly crumbling to pieces. Some very dangerous indications of this decay have been afforded within the past few days. The coat-of-arms and some of the figures were found to be shedding portions of their ornamental work, much to the danger of foot passengers. Great fear was entertained of a complete collapse, and to provide against this danger a number of workmen have started at scaffolding the front entrance of the structure. The intention is to remove the decaying ornamental figures, and supply their places with new and more substantial designs.

LAST year a well-known English Art critic was awaiting his audience of the Duke of Aosta. He had been ushered into a rather gloomy ante-room in the Pitti Palace, and his eyes wandered from the dim contents of one frame to another. Suddenly his attention was arrested. The loss of a beautiful work by Botticelli has long been deplored. "Sky'd" in that ante-room the stranger perceived a time-stained canvas. He climbed on a chair and gently rubbed the bottom of the picture with a handkerchief. He had only cleaned a tiny patch when he recognised that he had come upon the gem, prized by the Medici, the lost Botticelli! The dust of centuries proved to be a veil which peeled off easily, disclosing, in perfect preservation, the renowned "Triumph of Virtue." Some authorities say mere light, cruel time, possible accidents, and the ruthless restorer must, before this date, have caused the deterioration of the picture had it not worn its friendly mask of secular dirt. As it is, "La Pallade" is in its pristine freshness—is actually fresher than any work of the Master! When the Englishman was summoned to the presence of the Duke, he imparted the joyful news of his discovery. Since then the picture, resting on crowned chairs has been the only canvas in a cabinet in the Royal suite of rooms in the Pitti Palace.

IN the Crypt of St. Paul's Cathedral, the last resting-place of so many of our great painters, there is to be seen a Memorial which is interesting as an unconventional but thoroughly successful essay in stone and metals by Mr. Alfred Gilbert, R.A. It is fixed next Frampton's Memorial to Frank Holl, R.A., in a recess close to the spot where Lord Leighton and Sir J. E. Millais lie buried. So dark is the place that its existence seems in danger of being overlooked. The Memorial is to Randolph Caldecott, who died out in Florida in 1886. A figure of a child, about 3 ft. high, standing in quaint mediæval dress with close cap, holds in her hands a small medallion, on which it is intended to affix a portrait of Caldecott. Aluminium has been used for the figure, and the face, hair, hands and feet have been coloured with pigments. The Architectural framing is of bronze and stone—dark and very effective. Caldecott was born at Chester in 1846, and the inscription describes him as "an artist whose sweet and dainty grace has not been in its kind surpassed: whose humour was as quaint as it was inexhaustible." The Memorial to Frank Holl is a great contrast, but is none the less successful. The celebrated portrait painter died in 1888 at the age of forty-three, in the heyday of his career. "How short the life, how great the work," is the brief but significant epitaph.

WHEN Henri Rochefort planned the erection of a workmen's Glass Works at Carmaux, to help the glass workers, he received an anonymous gift of 100,000 francs. The donor was Mme. Dimbourg, who has recently died at Boulogne, aged 72. She was a curious old lady, wildly generous, yet careful to miserliness; sending her gift to the Glass Works anonymously, and then complaining when her name was omitted from the stone bearing a list of subscribers. She lived in an unpretentious house, furnished in the plainest fashion; hoarded up every scrap of paper and bit of rag she found, yet helped all whose want came to her ears. She sent 1,000 francs here, 3,000 there, whilst her own servants could scarcely get enough to eat, and their wages were extremely small. The money for the Glass Works was sent in a small linen bag, comparatively worthless, which no one thought of returning to her. She sent a servant to claim it, however, and was greatly annoyed it had not been sent back.

OWING to the heavy rains which have fallen in the Swansea Valley this week, and the consequent increase of water in the Morriston Canal, the enormous pressure resulted in a most damaging accident at the new sewerage works promoted by Messrs. Thomas, Watkins, and Jenkins, near Tir Penry. Sewerage pipes are being laid down from the river up to the town, and, in order to reach Tir Penry from the Old Bridge, it was necessary to work under the Morriston Canal. Considerable trouble was experienced owing to the sandy condition of the soil, which allowed a continuous flow of water to run into the works. The water had been successfully dammed, when a flood of water washed down into the tunnel and drowned the workings. Forcing its way out at a distance of 20 yards, the road leading down to the Old Bridge was soon changed into a river, the water running into the houses on either side several feet deep. This continued for several hours, the force of the water enlarging the outlet hourly, until at last the canal bank and its foundation near the spot were entirely swept away. With such an enormous aperture the water in the canal was getting low, and the bottom of the canal became visible. There being no water in the canal, all the large tin-plate works—five in number—in the neighbourhood have stopped. The bridge crossing the canal near where the accident took place was in great danger of collapsing, the earth surrounding the foundation having been washed away, with a couple of feet of the wall.

THE East London Trades, Industries, and Arts Exhibition has been such an unqualified success that the promoters have decided to depart from their original plan and allow it to remain open until November. Opened by his Royal Highness the Prince of Wales, at the People's Palace, on June 6th, it has been so popular in the densely crowded district of the East-end that nearly a quarter of a million of people have already passed the turnstiles. A nominal charge of a few pence is made for admission, and in addition to the interesting features which the Exhibition itself presents, such as the manufacture of sweetmeats, weaving, brushmaking, and operations in connection with other industries, an excellent and varied programme of amusements is provided. Associated with the industrial side of the Exhibition is the work of the students in the many polytechnics and technical institutes, and it has been the practice to hold a weekly reception by the members connected with the societies and trades who have combined to make the movement a success.

IN the absence of Mr. A. Vaughan Stevens and his family on a holiday, their mansion at Harpenden has been completely destroyed by fire. Strenuous efforts were made to extinguish the flames, which were first seen in the upper part of the premises, and were principally confined to the skirting in the passages and bedrooms, behind which ran the electric wires. All attempts to get the fire under control were futile, and a large number of people then directed their energies towards saving the valuable furniture. In a comparatively short space of time the mansion was stripped of a portion of its contents, the men working until it was impossible for them to again enter the building. Owing to an insufficient supply of water the fire engines could not render much assistance, and the building was burnt out. The damage is estimated at from £12,000 to £15,000. The cause of the fire is supposed to be the fusing of the electric-light wires. A complete installation was put in at very considerable cost when the mansion was built a few years ago.

WITH a view to the ultimate adoption of a system of lighting their trains by electricity, the Caledonian Railway Company has had an experimental train fitted up, and a trial was recently made on the new Underground Central Railway at Glasgow. The train consists of seven six-wheeled carriages—two first-class, three third, and two third brakes. The system now being experimented with is that of Messrs. J. Stone & Co. It is stated to be an entirely new departure, and the patentees claim to have succeeded in producing a system which makes the installation of each carriage complete and self-contained. Each vehicle carries its own generating plant, the motion of the carriage producing the electricity, and storing it in an accumulator, which automatically comes into action when the train slackens speed or stops at stations. The dynamo, which is driven by means of a light strap or belt direct from a pulley on the axle, is suspended from the underframe of the carriage in such a manner that absolutely none of the vibration of the axle is transmitted to it. However the speed of the axle may vary, the dynamo always runs at a uniform rate, and always produces the same amount of electricity. A mechanical governor automatically connects the dynamo to a small accumulator when the train is in motion, and the lamps then take their current direct from the accumulator, which has a storage of fully seven hours. Each carriage is provided with a switch so arranged that the light can be fully or partially on, or altogether cut off.

STILL another statue of a foreigner is destined to adorn the streets of Paris, viz., that of Washington. The cost of the statue has already been provided for by the Washington Statue Association, composed exclusively of women. The well-known American sculptor, Mr. Daniel French, has just left for Paris to see the proposed site—at the intersection of Boulevard Hausmann and Rue Washington—and he will then return to America, one of the stipulations concerning the statue, which is a gift of the association to the city of Paris, being that the work shall be exclusively American. Paris is one of the few cities in the World which erect statues to the great men of other nationalities.

THE large extensions in progress at the Gas and Electricity Works in Cotton Street, Aberdeen, are proceeding rapidly towards completion. The more important part of the extensions is probably that which is being carried out at the Electricity Station, where the premises are being enlarged to more than twice their former size. A space of ground immediately to the north of the existing buildings has been taken in, measuring about 58 ft. by 36 ft., and on this space are being erected a new Engine and Dynamo Room, Boiler House, Offices and Stores. The Engine and Dynamo Room, which is on the ground floor, fronts Cotton Street, and, along with the present room, accommodation will be provided for machinery to generate a 3,000 h.-p. current of electricity. The first floor of the extension will be used for Offices, Stores, and Testing Room. Entrance to the whole block will be provided by a large and handsome arched doorway in the middle of the building. The total cost of the extensions is estimated at £3,700. An important addition is to be made in the plant, comprising a 300 h.-p. engine and dynamo of the direct couple type, which is being constructed by Crompton and Co, Chelmsford and London, at a cost of £2,660; and two new 600 h.-p. boilers with feeder, water heating apparatus, and pumps, which are to be supplied by M'Kinnon and Co., Aberdeen, at a cost of £3,000. At the Gas Works the Retort House has been the scene of a very radical change. The present Offices and Dwelling Houses occupied by certain of the employes at the Works are also undergoing considerable alteration and extension. On the east side of the main entrance to the Works stands the Timekeeper's Office and Store Rooms and on the top of these are being built two additional floors. On the first floor are the Manager's Room, which is a large apartment, the Outdoor Assistant's Office, and a Drawing and Writing Office; while the second floor is to be set apart for a Testing Room, Book Stores, &c. On the west side of the gateway an additional floor has been placed on the Workmen's Dwelling House, and alongside, a two-story house for the assistant superintendent is now in process of construction. The total cost of the extension of the offices and dwelling houses will amount to about £2,000.

AT Douglas last week the opening of the new Central Promenade and Cable Tramway took place. This last section of the Promenade, which now stretches along the whole margin of Douglas Bay, and has been called the Central Promenade, reaches from the site of the iron pier (now removed) to the Queen's Promenade, a distance of 1,000 yards. The foreshore has been enclosed to form the promenade, but such enclosure does not in the slightest degree interfere with the bathing ground. The carriage and footways provided are over 100 ft. in width. The sea wall is built of concrete, and is of substantial character and handsome appearance. The whole work was constructed at a cost of £8,000 for the Douglas Town Council, under the supervision of Mr. T. G. Taylor, C.E., borough surveyor. The completion of the work has rendered it possible to drive along the sea coast from Laxey to Port Soderick, a distance of almost 14 miles. The Upper Douglas Cable Tramway, which has been promoted by the Isle of Man Tramways and Electric Power Company, Limited, to the north end of the town, has been constructed by Messrs. Dick, Kerr and Co., Limited, of London. The route is one mile and a half in length, and a double line is laid for the whole distance. The gauge is three feet. The power used is steam, and it is supplied from a convenient station by two Lancashire boilers with Galloway tubes, the water being passed through one of Green's economisers, where, from 60 degrees Fahr., it is raised to about 300 degrees before passing into the boilers, thus effecting a considerable economy. The engines, like the boilers, are in duplicate. They are of the horizontal high-pressure non-condensing type, and are fitted with Dr. Proell's automatic expansion gear and governor. The cars are of the bogie pattern, and were built by Messrs. George F. Milnes and Co., of Birkenhead. They are built to carry 32 passengers. The cable is 3¼ inches in circumference, of steel wire, laid on a hemp core with six strands of 13 wires each, seven round six on the "Lang" lay principle. The cables are each 20 tons in weight.

AFTER promoting a Bill for the purchase of the Highgate Cable Tramway for £2,000, the London County Council was forced to withdraw it as the Court of Chancery sanctioned the sale to a private individual for £2,500. The London County Council would have paid £2,600, only the Court thought that some time must elapse before Parliament sanctioned the proposal, and a speedy sale was best for the creditors. The matter has been in the Court for three years, and the line has not been worked for two years and a half. The Board of Trade now require that in addition to the £2,500 paid for the line—and a like sum will be needed to put it in repair—a capital of £10,000 shall be raised, and there is little chance of a new company being formed with such a capital as this to work a bankrupt concern. The London County Council had intended putting the line in thorough order, and the North Metropolitan Tramways Company would have leased it and run a service of cars from the top of Highgate Hill to the City.

THERE exists in Athens an Archæological Society, says the *Manchester Guardian*, which has been doing interesting and important work during the last ten years, though its very name is almost unknown beyond the confines of Greece. The Society of Christian Archæology was founded in 1885, and already it has more than justified the hopes of its promoters, not only in the collection of many memorials of early Christian Art, but in saving from destruction more than a few interesting old Churches. When the independence of Greece was secured measures for preserving the antiquities of the country were at once adopted, but by "antiquities" only the memorials of Classic times were understood; and so far from any effort being made to prevent the destruction of old Churches, as many as seventy of these venerable buildings are said to have been demolished in order to supply materials for the construction of the new Athens Cathedral in 1840. It was well known, however, that in different parts of the country there were many gems of early Byzantine Architecture, one of which is among the most curious and interesting ecclesiastical architectural monuments in Athens. One of the objects of the new Society was to establish a Museum of Christian Art, and this already contains a remarkably interesting collection of old pictures, mosaics, croziers, seals, vestments, &c. A library has also been formed, and a number of ancient documents has been secured by the Committee. But the direct work of collecting is only one branch of the Society's operations, and by its action the preservation of the remaining old Christian Churches is now virtually assured.



Artizans', Labourers and General Dwellings Estate at Hornsey.—Terrace of Fifth Class Houses.

ROWLAND PLUMBE, F.R.I.B.A., ARCHITECT.

DISCOVERY OF AN OLD WELL.

IN the course of excavations which are being made in Shoreditch in connection with the electric lighting installation which the Vestry of that district are about to establish, a singular discovery was recently made. Whilst at work in a deep cutting one of the navvies struck his pick through a yielding substance. A large quantity of earth and rotten wood fell with the blow, and the man himself nearly followed the rubbish. An old well was disclosed which, on measurements being taken, was found to be 20 ft. deep, and a yard in diameter, and to contain 7 ft. of water. There were found in the well the elmwood barrel and suction pipe of a pump. Although unmistakably of very ancient date the brickwork was remarkably clean and perfect, compact and mortared towards the top but loose towards the bottom to allow the water to percolate into the well. The well was under the pathway, in the High Street, two or three yards from the entrance to the Standard Theatre, close to the end of Holywell Lane, and in the district known as the Holywell Liberty. It is not improbable that the well gave its name to the spot and was connected with the Benedictine Priory which formerly existed there. An old map bearing the date 1745 and entitled "An actual survey of the parish of St. Leonard in Shoreditch, Middlesex," has the following reference to a spot close to the present site of the Standard Theatre: "Here are the remains of a Priory founded for black nuns of the Order of St. Benedict, the time when and by whom authors are not agreed. Divers lands and possessions were given them by Galfrid and William de Melichas, and divers others which were confirmed to them by King Richard I., April 11, 1195." Unfortunately a conflict of authority prevented the officials more directly concerned with the works for the electric light installation from pumping the newly-discovered well dry, and effecting a careful examination of this relic of a bygone age. The Works Department of the Vestry, who are carrying out the excavation, decided to fill in the well so that there might be no delay in their work.

SENSATIONAL PICTURES.

THE one Gallery that had the courage to open during the summer months is the Continental. But as if its managers realised that some special attraction must be offered to warrant such daring, they have searched the Salons of Paris for sensations, that an exhibition of "Startling Pictures" should be the result. In London, the pictures that startle are not the technical experiments and fireworks that challenge attention and talk at the Champ de Mars and the Salon des Indépendants. Audacity or outrage must be in the subject; and it blood flows plentifully on the canvas, if a grim incident or gruesome anecdote is treated with the utmost realism, then the work is thought to be characteristically French. In a word, the pictures that startle on this side of the Channel are mainly those that on the other are passed by as the huge *machines* yearly produced to cover the walls of the old Salon. Before going to the Continental Gallery, we knew that it was in the Champs Elysées the "Startling Pictures" had been sought. Nor when we did go were we surprised to find M. Tattegrain's gigantic "Bouches Inutiles" the special feature. Of the other pictures, the most conspicuous belong to the same class, though none is so large and horrible. M. Laucadère's "L'Arène" is a painted version, one might say, of "The Sign of the Cross," in which the painter has neglected the moral, perhaps, but has not hesitated to give the disagreeable details which Mr. Wilson Barrett amiably leaves to our imagination. M. Jean Verber's "L'Homme aux Poupées," apparently intended to appeal by its puzzle, to which we doubt if he himself could give the solution, is the work of a man who ought to do better things, though we hardly agree with M. Henri Rochefort—quoted in the catalogue—that one might think bits of stuff here and there had been painted by Eugène Delacroix. We can fancy the outburst of indignation in the *Journal* had Delacroix lived to read this. There is a M. H. E. Delacroix represented, who, however, does small honour to the name by his foolish, glaring "La Poésie Guerrière," a sort of military allegory, for which M. Detaille, a few years since, set the modern fashion. But it is useless to go further through the list. Enough has been said to explain the character of the collection. Those who care more for Art than for sensation still have a refuge, even at this dead season, in Trafalgar Square. It is only for the lover of "Startling Pictures" that the Continental Gallery caters, as its managers have the frankness to announce.

AN ARTISTIC MANSION.

STAFFORD House came into possession of the Sutherland family in 1842, and since that date they have spent upwards of a quarter of a million on the building and its decorations. Of the kings, queens, princes, statesmen and celebrities of all shades of opinion and of all countries who have been received and entertained at this Mansion, it would be impossible to give any idea. Queen Victoria, in the early part of her reign, was not an infrequent visitor; and it was on the occasion of one of these visits that the then youthful Queen made the remark which speaks volumes as to the beauty of the interior of the Mansion, and the artistic nature of its contents: "I have come from my house to your palace." Rogers, too, the well-known banker and poet, once said that he had visited nearly every Palace in Europe, and had never seen anything he liked so well as Stafford House, adding that it was to him a fairy Palace, and the Duchess was the good fairy. With regard to the interior, the entire construction of the Hall is in the form of a square. The walls, floor, and staircase are all of marble; the staircase—which is a double one—being supported on either side by Caryatides; the balcony is supported by marble columns. The furniture of the Hall has choicely carved gold frames and upholstery of silk and velvet, with floral designs of many colours. The lamps of ormolu and crystal are of remarkable size, and there are eight smaller ones on pedestals, the upper portions of which are of

WROUGHT GOLD.

There are some beautiful busts also to be seen in alabaster and white marble; on either side of the staircase the Queen and Prince Consort respectively, and that of Ferdinand de Lesseps. Then there are four marble statues, and some granite pedestals carrying bronze figures, which support baskets of the same for flowers; also a mosaic table on mahogany stand with gilded legs, and a bronze equestrian group which was presented to the late Duke for his work on the railway from Helmsdale to Wick and Thurso, County Caithness. The State Drawing Room is a "truly regal apartment," while the Duchess's Boudoir is "extremely elegant in appearance, containing amongst other Art treasures a splendid Correggio; in the ceiling may also be observed some rare painted frescoes. The floor is covered in tapestry; the walls are hung with green velvet, the furniture—which has finely carved frames—is some of it in green velvet brocade, and some in cream with floral designs. On the large antique couches much beautiful Indian drapery is seen. A large white marble-topped table is supported with a massive carved gold base and tripod figures. Stafford House contains one of the finest private collections of paintings, including pictures by Rubens, Murillo, Vandyke, and Titians. At the end of the Picture Gallery is the State Banqueting Hall of fine proportions. The ceiling of the Library is lavishly decorated in white and gold, doors and window recesses painted and ornamented in character. The carved frames of the furniture are some in white and gold, and some in gold only, with upholstery of green brocade of a lighter shade than the walls. White and gold cabinet cases contain the books; and these cases are placed in every available space round the room. On the top of these bookcases may be seen marble busts and Sèvres china. It is lighted with electricity, diffused from a bronze chandelier. In recesses on either side of the fireplace are some costly miniatures; the fireplace itself has an alabaster mantel with ormolu decorations. On the mantel stands a Parisian timepiece of bronze and platinum, on either side of which are Chelsea vases and ormolu candelabra.

DUBLIN ART INDUSTRIES EXHIBITION.

THE number of exhibits in the Art Industries Exhibition, held in connection with the Horse Show, is 769, as compared with 516 last year, showing the large increase of 253. There is quite a remarkable increase in the proportion of exhibitors of artistic work in leather, the number being three times that of last year. The specimens are good, some of the raised work being excellent in design and execution. These exhibits are mainly the production of private workers. Two Convents send in work, that of the Sisters of Mercy, Kinsale, and that of the Poor Clares, Kenmare. The work which was executed by pupils of these Schools, is of a useful character, including album cover, letter and card cases. The private exhibitors have not so well combined the useful with the ornamental. The result shows the value of the training in the Convent Schools, which enables the pupil to produce forms which are not merely artistic but are useful as well, and will thus command a price in the market. Sir Edward Sullivan shows in this section eight reproductions of antique book bindings with inlayings and enamelling.

THE ARTISTIC METAL WORK

is represented by 39 specimens. There are, in addition, 21 designs. Last year the exhibits numbered 41, while there were only 12 designs. The curious feature about the section is the decline in the number of wrought iron exhibits. The class for this work was established only last year, and was very successful then, but for some reason the interest in it has not been maintained. There has been a steady increase in the number of artistic metal workers competing at the Show since the Art Industries Exhibition. In 1893 the number was 9, in 1894 it was 11, last year it rose to 20, and now the number is 22. A gratifying feature is that the work has improved year by year. At the start there was much over-elaboration, and though the tendency is not yet wholly subdued there is still a marked improvement, which shows that the Exhibition has been of value in educating workers into a taste for simple Art forms. There is still some room for improvement. It is strange that in this work there is no attempt to reproduce the old Celtic designs in metals, which are the finest, perhaps, in existence, and would come with all the charm of freshness in these days of exaggerated and oftentimes incongruous forms.

THE WOOD CARVING

is, after the laces and embroideries, the most important feature in the Exhibition. There is a tendency in this class of work to attempt the production of ideal conceptions rather than articles of utility. This was the case when the Exhibition was first opened, when many exhibits were admitted that possessed little merit. The large number of really good things that have been sent in since then have crushed aside the unworthy specimens to which wood is unsuited, that were in the beginning allowed to crowd the cases. These forms were often grotesque, and the attempts at high Art resulted in the most inartistic productions. The exhibits are in the main good and useful things. The workmanship is excellent, in many of them, and the designs are good. The number of exhibits is 215 as compared with 208 last year. There are in addition 19 exhibits of designs for wood carving; the number of exhibitors in the section is 115, last year there were 98. Only one Convent, that of the Sisters of Mercy, Kinsale, has an affiliated wood-carving class. The Society would do well to get others to join the movement. The Art needlework is another important section of the show. There is an increase in the number of exhibitors, but the exhibits that they have sent in are not so numerous as last year, but show, on the whole, a satisfactory state of things, for there is a tendency to produce quality rather than quantity.

AT Moscow a fire recently occurred in the Rumjamzeff Museum. The Panin Hall, which contained the Public Library, was destroyed with the books, and the adjacent Rumjanzeff and Dolgoruky Galleries, where many valuable collections are exhibited, were damaged by water.

A MINISTRY OF HEALTH.

SANITARY INSPECTORS' CONFERENCE IN LEEDS.

AT the Conference of the Sanitary Inspectors' Association in the Council Chamber of the Leeds Town Hall, in the absence, through indisposition, of Sir Benjamin Waud Richardson, M.D. (president), Mr. T. Pridgin Teale, F.R.S., read the President's address, in which Dr. Richardson said that some twenty years ago he raised the question whether we ought not to have established in our country a



DETACHED COTTAGE, EPPING, ESSEX. : J. W. RHODES, ARCHITECT.

Minister of Health. It was by modification of, and additions to, the Registrar-General's Department, as it now existed, that the new official and governmental institution for which he pleaded should be established. The department would be no longer for mere registration, but would include all that related to health. Correctly re-named it would be a Ministry of Health or a State Department of Health. The construction and duties of the Ministry of Health would lead to several divisions of labour. In addition to the duty of collecting the registration of births, deaths and marriages, the Ministry of Health would collect the registration of disease throughout the kingdom. A complete system of registration would be established, and the returns supplied by it would include not only the diseases affecting human kind but the diseases affecting animals and plants in every locality. Above all, the Minister of Health would collate the leading facts connected with the work of the various sanitary officers of the kingdom, and condense them annually into a form that would serve as a permanent history of the results of sanitary progress. To this end each local authority would send to him, at stated times, and always once annually, the report of its medical officer on the health of the whole district under its charge; a report systematically arranged for ready reference, and for after-arrangement for the central department. To the Ministry of Health would naturally be referred the sanitary arrangements of prisons and of the establishments of police; and, lastly, to a Ministry of Health there would, of necessity, be attached a direction having reference to the sanitary construction of all the public works that would be carried out by the Government at its instance and expense. At first sight it would occur to most minds that, following the usual precedent, the Minister should be a Minister of State, changing, or liable to change, with every Government, and holding his office as a Chancellor of the Exchequer or other Minister of the Crown now holds his official appointment. The impression, however, in his mind was that such a mode of appointment would not be for the best interests of the country, nor for the best interests of the science of preserving health. The Health Minister would differ from other Ministers of the Crown in almost every particular. He could only carry out the duties of his office after a special training for the performance of them. To leave his duties to the chiefs of departments would be to ignore them altogether, and to let the most useful parts of the office go by default, perhaps at times when the union of the different parts of the official work in one mind and in one direction was most imperative.

Mr. George Darley read a paper prepared by Dr. Spottiswoode Cameron and himself on "The working cost in Leeds of destroying refuse by heat." He said that in Leeds there were now four destructors, but his figures only related to three of them — Armley Road, Beckett Street, and Kidacre Street— which had been working pretty steadily, although not up to their full possibilities, during the three years ending 25th March last. During that period 181,645 tons of refuse had been burnt. The working cost, exclusive of land, plant, and superintendence of refuse removal, had been £14,773, giving a rate of 19·52d. per ton of refuse destroyed. The cost of the erection of the three sets of buildings and additions had been £24,266, the interest upon which at 4 per cent. was £2,912, or nearly 3·85d. per ton. The cost of land for the destructors was £7,999. The total cost per ton of refuse destroyed had been 24·64d. Papers were also read by Mr. R. W. Evans on "Public Health Law"; Mr. Joseph Lindley, Batley, on "How Dwelling-houses are sometimes Unhealthy"; Mr. R. W. Cass, Pudsey, on "Drainage of Buildings."

THE new Pier for Herne Bay is to extend three-quarters of a mile into the sea, so as to be available for steamers at all times of the tide. The engineer for the work is Mr. Ewing Matheson, and the cost of the Pier is to be £35,000.

STEPS are about to be taken towards providing a new Vestry for the ancient Church at Bakewell, in which is the famous Dorothy Vernon Chapel. This Chapel for some years has been used as a Vestry, and an attempt is now being made to obtain sufficient money with which to build a Vestry on the north side.

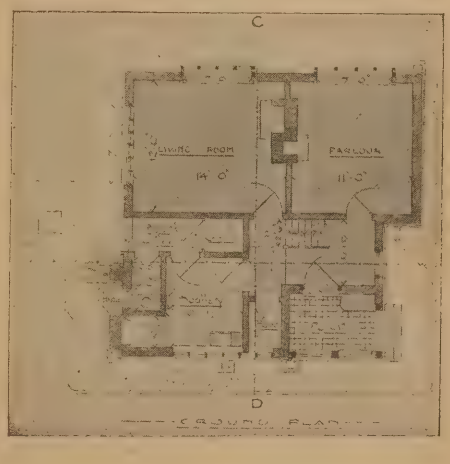
SOMERSBY Old Hall, Lincolnshire, where Alfred Tennyson was born on August 6th, 1809, is advertised to be let or sold. It was here that a great part of the earlier and more beautiful of the Laureate's work was conceived and executed. It would be a great pity if anything happened to prevent the preservation of so interesting a place.

THERE was successfully launched from the yard of the Cail Engineering Works at St. Denis, on Wednesday, a steamer which marks a new departure in shipbuilding, the innovation consisting of a series of rollers on which the vessel proper is carried. Four engines, developing altogether 200 horse-power, simultaneously drive the propeller and give a rotary movement to the rollers. It is intimated that a speed of 25 knots an hour will be attained.

BALLOCHMYLE QUARRY has just produced two splendid fossils, which are described as the grandest examples of crystallisation that have ever been found in Ayrshire. While one is only sixteen inches by nine inches, the other is four feet in height by two in width. The larger one is tree-like in form, the stem in slenderness resembling a palm. From it the branchlets and twigs spring, gracefully bending downward towards their tips. Around its root it is further adorned by crystallisations of shrub-like growth occupying about a foot of the base. Mr. Bain, lessee of the quarries, is to present the fossil to Kilmarnock Museum.

AN EARLY NORMAN CHURCH.

THOUGH the documentary history of New Shoreham Church is singularly scanty, its Architectural history, as Mr. Edmund Sharpe pointed out in his valuable monograph on the building, read before the Archæological Institute in 1853, is remarkably precise and well defined. A great portion of the original building has disappeared, for the fragmentary ruin of the south-western corner of the Nave is still standing detached by a long space from the present western wall, and this fragment was obviously included in the original Church. This must have been built during the later Norman period before 1145 (the earliest mention of the Church is in 1151). The present western portion of the Church, including the Transepts, is of the Norman period, though apparently about 1180, and probably it was terminated eastward by three eastern Apses and a Choir without Aisles, all of small dimensions. These were removed during the Transitional period (1145-1190), and the very handsome and spacious Choir with north and south Aisles, which is now the principal portion of the Church, was built in their place. The upper part of the central Tower is of the same date. To the Lancet period (1190-1245) belong the Choir, the Triforium, the Clerestory, and the exterior flying buttresses. Some of the windows in the Choir and Transepts belong to the Rectilinear or Perpendicular period, 1360-1550. Such, in the briefest possible summary, appears to be the Architectural history of the Church. It was probably founded by Philip de Braose, the second Lord of Bramber, about the year 1100. Connected with the Priory of Sele, subsequent alterations were made, it may be supposed, by successive Lords de Braose. That no material additions were executed after the thirteenth century was probably due to the decay of Shoreham as a port. Coming to the present day, and omitting mention of various internal works of restoration carried out in 1877 and subsequently, extensive and thorough repairs to the Tower are now in progress under the direction of Mr. B. Engel, Architect, and Mr. Thompson, builder. This absolutely necessary restoration has been taken up by the Vicar and a committee. Not content with restoring the



DETACHED COTTAGE, EPPING, ESSEX: J. W. RHODES, ARCHITECT.

Tower, they have taken in hand the re-casting of their bells. Nos. 2 and 4 of the old peal, cast by Lester and Pack in 1767, were inscribed "Our voices shall with joyful sound, make hills and villages echo round." Some of the influential subscribers to the works now in progress are anxious to take the present opportunity of rebuilding the Nave. While the plant is on the spot, they argue, this project may be carried out much more cheaply than in the future, when there are no such appliances at hand. It is said that £8,000 more is wanted— a large sum, but surely obtainable by widely spread and well directed appeals. The Church ranks second in interest in Sussex to the Cathedral itself, coupled perhaps with Boxgrove Priory.

Professional Items.

CADOXTON-BARRY.—The new Baptist Chapel building will cost about £1,550, and will accommodate about 600 people. The Foundation Stones have already been laid. The Architect is Mr. Williams, of Messrs. Bruton and Williams, of Cardiff, and the contractor Mr. J. Griffiths, Barry Docks. The cost is estimated at about £1,600.

SOUTH NORMANTON.—A new School building has been commenced, the contractors being Mr. Geo. Page for the brickwork and masonry, and Mr. Geo. Smedley for the woodwork. It is proposed that the memorial stones should be laid early this month. The site for the new building cost £100, and the cost of the erection will be about £500.

GOLDTHORPE.—Memorial stones have been laid of a Branch Stores in connection with the Doncaster Co-operative Society at Goldthorpe Lane Ends. The building was commenced last April, and is expected to be completed during November. It is situate on the Doncaster and Barnsley road. The cost is to be about £2,165, including two houses. Messrs. Athron & Beck, of Doncaster, are the Architects, and Messrs. Arnold and Son, of Doncaster, the builders.

WARRINGTON.—The extensive grounds of the Winwick Hall Estate, near Warrington, the site of the proposed new County Asylum, are now in the hands of the contractors for the preliminary works necessary before the erection of the Asylum can be commenced. The Architects for the Asylum are Messrs. Henry Crisp and Oatley, and W. S. Skinner, of Bristol, and it is expected that the main contract will be given out next spring.

NORTHAMPTON.—Plans have been accepted in a limited competition (open to three members of the profession) for the Rose and Punchbowl Hotel in this town. The old house is to be pulled down for the improvement that is contemplated being made by the Corporation, viz., the widening of Marefair. The new building which is to cost about £2,000, will be built of red brick with stone facings. The Architect is Mr. H. Norman, of Swan Yard Chambers.

WEST BROMWICH.—Last week the new Theatre Royal, which has been erected in Walsall Street, West Bromwich, on the site of the building which was destroyed by fire in September, 1895, was opened. The Theatre, which has been built and fitted up upon the most modern plan, will cost, when completed, between £6,000 and £7,000. The contractors are Messrs. Bradley & Lloyd, of Wolverhampton, and the decorations have been carried out by Messrs. A. R. Dean & Co., Birmingham. The Architects are Messrs. Owen & Ward.

LEEDS.—The Markets Committee of the Leeds Corporation has accepted the tender of Messrs. H. Braithwaite and Co., of Swinegate, Leeds, for roofing in the open square of the Kirkgate Market, subject to the approval of the Council. The amount of the tender was £8,218, and the work is to be finished within twelve months of its acceptance by the Council. In order to give immediate relief to the stallholders, it is proposed to divide the work into three parts, and it is expected that the first portion will be finished and ready for occupation in about four months.

BIRMINGHAM.—A Reredos has been unveiled in St. John's Church, Sparkhill, by Mr. C. A. Smith-Ryland, in memory of Miss Ryland. It is the work of Messrs. Jones and Willis, the Architects being Messrs. Martin and Chamberlain. The Reredos, of which so far as the central portion has been erected—leaving the sedilia to be added—is of Caen stone, divided into four Gothic-headed panels by clustered polished alabaster columns, with moulded stone bases and moulded and enriched caps. The panelling is of alabaster, and is surmounted by three crocketted gablets, having sunk moulded and enriched panels, the central ornament being the monogram "I. H. S." On the plinth of the Reredos is an inscription.

KILMADOCK.—The Parish Church has been reopened after undergoing very considerable alterations. The fine old Church, with its massive Tower, was built in 1820. The formation of the interior has never been altered since the present structure was built seventy-six years ago. The Church has accordingly been reseated in the basement, a new system of lighting by electricity introduced, and a new organ built. The wood used is yellow pine, with a dark graining over all, the Pulpit being of solid oak. The contractors were:—Joiners, Hutchison and Grant, Glasgow, and Reid and Hutchison, Doune; painters, W. Carson and Sons, Stirling; plasterer, John M'Laren, Dunblane. The Architect was Mr. John Honeyman, Glasgow.

BOTHWELL.—At a recent meeting of the heritors of Bothwell, held in the Parish Church, to take into consideration the question of the restoration of the old Church, Dr. Pagan submitted plans which had been prepared by Dr. Rowland Anderson. They included the lowering of the roof of the Sacristy to its original height, restoring the stone mullions on the east and south windows, replacing the broken off stone carvings connected with the sedilia and piscina, lowering the ground round the Church and the floor to its original level, repairing the walls and roof, heating, furnishing and slating the Church. He stated that the estimates which had been taken for the restoration of the work amounted to £1,700. After consideration it was agreed to approve of the plans and to appoint a committee to carry them out, on condition that the amount required be subscribed or guaranteed.

LEIGH.—The Leigh District Council has obtained the sanction of the Local Government Board to the borrowing of £33,548 for an improvement scheme by which Market Street, one of the principal thoroughfares of the town, which at present is a narrow and irregularly constructed street, varying from 18 ft. to 46 ft. wide, will be made a uniform width of 52 ft. A large block of buildings, in which old-established businesses are at present carried on, is to be demolished, and for the destruction of these buildings heavy compensation is claimed. Important improvements are also to be effected in Bradshawgate and Chapel Street, Leigh, and in view of the growing importance of the town, the provision of a new fever hospital is being rapidly pushed forward. An extensive sewerage scheme is also being carried out for the district at a cost of between £40,000 and £50,000.

LLANWRTYD WELLS.—The new Church dedicated to St. James, was recently opened. The Church has been chiefly built by local workmen, in the early Geometrical style, consisting of a Nave, 58 ft. long by 25 ft. wide, with a Porch, 8 ft. by 7 ft. at the western extremity of the south side. The Chancel, including the Choir, is 26 ft. long by 19 ft. 6 in. wide, with a Vestry on the north side, 14 ft. by 10 ft. There are chairs for 226 worshippers. The walls are built of local pebblestone in flint work; the roof is covered with Portmadoc blue slates and Ruabon red ridgings and crosses, with a bell cot mounting the western gable; the contractor for these was Mr. William Thomas. The dressings are of Grinshill red sandstone; the contractor for this work was Mr. Thomas Barker. The roof is open timbered, and the contractors for the carpenter and joiners' work were Messrs. Samuel Williams and Son. The encaustic tiles for floors were supplied by Messrs. Mansfield Brothers, Church Gresley. The windows are glazed with cathedral tinted glass, by Mr. Samuel Evans, Birmingham. The painting is by Mr. John Graham. The whole has been carried out from the designs and under the superintendence of Mr. David Jenkins, Architect, Llandilo.

PORTSMOUTH.—Portsmouth can boast of possessing the second largest School in England. It is known as the Drayton Road Board School, and was opened last week. The front elevation faces west, and there is a Tower at the southern end over the staircase leading to the girls' department. The boys and girls' School are in one block, the girls occupying the first and the boys the ground floor. The Schools are erected on the Central Hall system, with five Class Rooms on either side of the large Hall, which measures 80 ft. by 40 ft. The entrances are by quadrangles at the north and south sides, there being two in each quadrangle. The girls' School (including a Central Hall) is reached by two fireproof staircases at the back. Mezzanine floors are provided, which serve as book stores and Lavatories. The Teachers' Rooms are at the end of the corridors. There is also a large infant School. There are three large playgrounds, that for the boys being at the west front, the girls in the centre, and the infants at the back. The boys' and girls' Schools will accommodate 1,200, and the infants' 850. The plans were prepared by Mr. A. H. Bone, Portsmouth, and the work was carried out under his supervision. Mr. Cockerel was the contractor.

BISHOPBRIGGS.—A new public School, which has been built by the Cadder School Board, was opened last week. It occupies a site a little off the public road, two or three minutes' walk from the railway station to the north. The old Stirling School, built and endowed by Mr. Stirling, of Keir and Cadder, stands between it and the public road, but is now being demolished, and with its removal will disappear a somewhat interesting local feature. The new buildings are estimated to cost about £4,500. To the front there are two gables with a Tower in the centre. The entrance to the School is at the base of the Tower, and leads directly into a large Central Hall. Then, to the right off the Tower, there are two rooms for the teachers. The Central Hall is surrounded by the Class Rooms, which are seven in number, and capable of giving accommodation for 420 scholars. In each gable there are two light windows with mullions and arched heads. The gables are finished with an enriched bargeboard, under which is a tracery quatrefoil opening. Behind the School, a new residence is being erected for the headmaster, at a cost of about £750. The Architect is Mr. David Sturrock, of Bath Street, and the principal contractors are, for the mason work, Mr. John Marshall, and for the joiner work, Messrs. Kemp and Sons, Bishopbriggs.

HUDDERSFIELD.—Corner Stones of a new Wesleyan Chapel and Sunday School, which is in the course of erection at Thornton Lodge, were recently laid. When the new building is completed, it will accommodate about 200 persons, with a School Room and two Class Rooms underneath, and the cost is expected to be about £700. It will consist of a basement to contain hot water apparatus and Store Room. The first floor will consist of two Class Rooms, School Room, and Lobby. The top floor will contain a large Upper Room, which will be used as a Chapel. The room will be 17 ft. in height, with open stained pitchpine roof, and will be ventilated by eight inlet ventilators and three outlet ventilators into air flues. All the rooms will be lighted by gas from pendants suspended from the ceiling. The front elevation will be of pitch-faced Elland Edge stone, and the ashlar heads, sills, and trusses will be moulded and wrought. The contractors for the various works were:—Masons, Messrs. William Mallinson and Sons, Lockwood; joiners, Messrs. J. Blakeley and Sons, Netherton; plumbers, Messrs. Crossley and Bould, Marsh; slaters, Messrs. J. Longbottom and Sons, Lockwood; plasterers, Messrs. Jas. Wilkinson and Sons, Meltham; painting, Mr. R. Heaton, Paddock; and heating apparatus, Messrs. Milan and Sons, Lockwood.

OLDHAM.—The new building in Union Street which has been erected by the Methodist New Connexion body for School purposes, was recently opened by Miss Smith, of Holyrood. The style of the building is Queen Anne, and is carried out in red Ruabon, terra cotta, and fancy bricks. The ground floor has a large spacious entrance, with Vestibule (leading direct to the School Room), from which is a staircase leading to the upper Class Rooms. The large room, which is in the centre, is 51 ft. by 42 ft., and there are three Class Rooms on the other

side, and an additional staircase leading to the upper Class Rooms on that side of the School; there are also Lavatories. The upper floor has ten Class Rooms, five on each side. The School Room, including the Gallery, will accommodate 750 persons. In the basement is a Gymnasium, together with a spacious Kitchen, and a hoist communicating direct with the School. The whole contract, exclusive of heating, was let to Mr. William Lees, of Oldham, the sub-contractors being as follows:—Terra cotta and facing bricks, the Ruabon Brick and Terra Cotta Company; excavating, draining, and brickwork, Messrs. S. and J. Smethurst; stonework, S. Smethurst; carpenters and joiners' work, Wm. Lees; slating, R. Fletcher; plastering, James Hall; plumbing and glazing, John Kershaw; painting and varnishing, E. Edmondson; heating, Mr. W. F. Spencer; electric lighting, Messrs. Charlesworth and Co.; tiling, Messrs. Williams and Co.; and wrought ironwork, Messrs. Cunliffe and Dean. The work has been carried out from the designs of, and under the superintendence of, Mr. J. W. Firth, Architect, of Oldham. The total cost is about £4,500.

GREENBANK.—The new Elementary Schools were opened last week by Sir Charles W. Dilke. They have been erected by the St. George School Board to accommodate some 940 scholars (girls, boys and infants) at a cost of £9,400, from plans prepared by Mr. F. Bligh Bond, Architect, of Bristol. The Schools stand on a long and narrow site, and the ground floor extends for a length of nearly 300 ft., with a frontage for the whole distance to St. Leonard's Road. The Infants' School, of one floor only, occupies the upper or south end, and contains a School Room for 100, and four Class Rooms for 50 children each. The senior department joins this on the north, and is divided into a ground floor for boys and a first floor for girls, each having separate entrances. Both these departments contain a Central Hall, 50 ft. by 36 ft.; three Class Rooms, 25 ft. by 22 ft., holding 50 each; and two, 25 ft. square, holding 60. There is also abundant accommodation for teachers, and a thoroughly satisfactory sanitary system for all departments. A Caretaker's House occupies a corner of the site. A system of ventilation and heating combined has, for the first time, been adopted by the St. George Board in this building, and has been installed by the patentees, the Blackman Warm Air Heating Co. The building is erected of local pennant stone, with Bath stone dressings, and is slated with "Sedan" green slates. Internally the rooms are lofty, airy and well lit, and the Central Halls, especially that on the upper floor, are remarkable for their size and good appearance. Into the large upper School Room has been fitted a seventeenth century carved stone chimneypiece, removed from the old house at Barton Hill—now known to have been the manor house of "Tilly's Court"—on the demolition of that building for the site of the new Board Schools erected there (also designed by Mr. Bligh Bond). It appears that on the destruction of the house, the chimneypiece was preserved by the then owner, Sir Joseph Weston, who had it removed to Clifton; upon his decease it was sold by Lady Weston. The chimneypiece bears the date 1658.

BIRMINGHAM.—To facilitate the work of the Upper Highgate Street Mission, Mr. Cadbury has undertaken the provision of a complete suite of rooms. For this purpose two-thirds of an acre of land have been acquired, having frontages on the Moseley Road, opposite the new Board Schools and Oughton Street. The main entrance to the buildings will be in the Moseley Road, but the large Hall for meetings will be in the rear, with an entrance in Oughton Street, and it will be capable of providing sitting accommodation for 2,000 persons. Arrangements, however, will be provided for dividing the room so as to be equally suitable for small meetings. Underneath this room will be a spacious and well-equipped Gymnasium, which will also be available for meetings. On the Moseley Road side there will be a spacious Crush Lobby and large Coffee and Reading Rooms. A glass-covered Verandah will also be provided, and there are also to be provided Ornamental Gardens and Shrubbery. In addition there are to be fifteen small Class Rooms and a Lecture Hall, 33 ft. by 66 ft., a well-equipped House for the manager, and an Office for the secretary. Mr. Cadbury further proposes to build thirty-three Almshouses for old people at Bournville, and the designs for these, as well as the Institute in Moseley Road, have been prepared by Mr. Ewen Harper. The Almshouses will be built with ground floors only, in thoughtful consideration of the aged limbs of the inmates. Each house will contain a good Living Room, with bay window, a Bedroom, Scullery, and Coal House; each will have a separate yard, while the entrance to each Lodge will have a Porch, with comfortable rustic seat. The outer doors will be of oak, and the whole of the fittings of the neatest and most substantial character. The Almshouses will be arranged in two quadrangles, divided up with paths to form ornamental gardens, laid with turf. In the centre of the building is to be a wide carriage entrance, and above a Clock Tower with Time-piece, facing four ways. On one side of the carriage entrance will be the Matron's Residence, and on the other a commodious Hall. The gables are formed of half-timber of solid oak; the buildings themselves are to be constructed of the best bricks, with stone or terra-cotta dressings.

OSSETT.—The site on which it is proposed to build the Town Hall covers an area of about 3,620 yards, and was originally bought by the Local Board for a similar purpose in 1877. The scheme, however, fell through, as the Local Government Board declined to sanction plans for the erection by a Local Board of a structure which it was proposed should contain a large Assembly Hall in addition to Public Offices. The plans for the building have been prepared by Messrs. Holtom and Fox, Architects, of Dewsbury, who estimate the cost of erecting and furnishing at £11,000. Fronting to Bank Street, the Town Hall will be a neat structure. The elevations are to be in the Classic style of Architecture, with square and circular headed windows; the front and return elevations to be in ashlar, and the remainder in pitch-faced delph stone. At the front there will be a rustic basement with columns and pediment over, and with extensions on either side for the staircases to the larger Hall. Two stories in height, the ground floor (above the basement) will be elevated some four or five feet above the ground level, and will comprise the Municipal Offices, Borough Court and a Council Chamber. Above will be a large Assembly Hall, with a spacious Gallery and Balcony. The principal entrance to the Municipal Offices will be in Bank Street, approached by a short flight of steps. On the right side are to be the Town Clerk's Private Office, General Office, Strong Room, Rates Office, Mayor's Room and Council Chamber; on the left the Surveyor's Room, Borough Court, Magistrate's Retiring Room, Waiting Room, and Committee Room. The whole of these rooms are to be 13 feet high, with the exception of the Council Chamber and Court, which will be 16 feet. The entrances to the large Assembly Hall are to be in the wings on either side of the main building. Over 100 feet long and 54 feet wide, there will be seating accommodation in the area of the Hall for 860 persons, whilst in the Balcony and Gallery there is to be accommodation for another 300. The platform will be large enough to accommodate a band and chorus of 150. Ante Rooms for performers are also to be provided. In the basement will be Offices for the Water Inspector and the Weights and Measures Inspector; also three other Offices or Store Rooms, a prisoners' Waiting Room and Police Room, as well as Kitchen, Heating Chamber, and Coal Cellars.

THE Freemasons of Kent have decided to present a window to Canterbury Cathedral, at a cost of £600.

A DISCOVERY has been made in the commune of Pitthem, near Bruges, of an ancient cemetery, dating from the time of the early Franks. Two graves have already disclosed skeletons of warriors who had been buried with emblems of mourning, as was the custom during the time of Clovis and his successors. Being the first discovery of the kind north of the Meuse, it proves beyond doubt the existence of Germanic tribes in Flanders.

Views and Reviews.

ST. BARTHOLOMEW THE GREAT, WEST SMITHFIELD.

MR. FREEMAN DOVASTON has issued a small illustrated pamphlet telling the unique interest and beauty of the venerable Norman Church of St. Bartholomew the Great, in Smithfield. For the notes—excellently done, by the way—we are indebted to Mr. E. A. Webb, one of the honorary secretaries to the Restoration Committee. Such a work as this was greatly to be desired. An awakened interest in Architectural glories, of which the loving care bestowed upon this fane is a fitting sign, has spread far beyond professional limits. Even the Londoner—most apathetic of beings—has felt the charm. The ancient courts of St. Bartholomew have echoed, of late, with unfamiliar footsteps, and men have wandered in from near and far to gaze upon this noble work of the forgotten great, and, perhaps, to be the gladder for its beauty. The illustrations comprise a series of fourteen half-tones; charming in their subjects, they are no less worthily executed. Visitors to the Church will find this little book to be a genial companion, less garrulous withal than the ordinary animated *cicerone*, but none the less pleasant and informing on that score. For others, to whom—through scantiness of leisure or bar of distance—St. Bartholomew's can be no more than a name, Mr. Dovaston's work will serve to reveal some of the manifold beauties of one of England's most famous Churches.

"Views of the Ancient Priory Church of St. Bartholomew the Great, West Smithfield, London, with Notes by E. A. Webb." 1s. London: Freeman Dovaston, 5, George Street, Euston Road, N.W. 1896.

CHRIST'S HOSPITAL.

WE have here a delightful publication for all—and how many they are!—who hold in grateful remembrance the pious foundation of the boy-king, Edward VI. It is a little album of sixteen views, setting forth in manifold aspects the features of London's noblest charity. The publisher has not seen fit to furnish any accompanying letterpress. The illustrations are left to tell their own tale—and a very charming tale it is. Had the story found verbal utterance, perhaps something might have been said of the wordy war that has been waged about these quiet buildings in recent days. It is entirely well that Mr. Dovaston should have added the venerable School to his series of publications. In a little while its place will know it no more, and London will be the poorer by the loss of one of its most treasured inheritances. We may be allowed to feast our eyes upon mammonite piles of modern masonry, but these Tudor chronicles in stone that taught our fathers of beauty in Art, of charity in life, will have passed from sight into a vague remembrance.

"Views of Christ's Hospital." Freeman Dovaston. 1s. London: C. Taylor, 23, Warwick Lane, E.C. 1896.

A TRADING company has offered £3,500 for an unfinished picture of Millais'—one that was on the easel at the time of his death. The picture would, no doubt, be of immense value for advertising purposes, but it is understood that Sir John Millais' family have declined to sell it.

IT is stated that the Acetylene Illuminating Company, of Queen Victoria Street, have concluded arrangements with the British Aluminium Company, who are already located at the Falls of Foyers, by which they will be able to erect works of several thousand horse power for the manufacture of calcium carbide, using water power.

THE plans for the new School for the Blind that is to be erected in Church Road, Wavertree, Liverpool, were recently submitted to the Improvement Committee of the Corporation, and will probably be sanctioned at the next meeting of the Council. The proposed building will be of large dimensions. The grounds will abut on Fir Lane, and as a consequent matter the Council will be asked to consider the question of widening that thoroughfare.

A NEW CHURCH IN LIMERICK.

AT Nenagh, near Limerick, within the grounds of the ancient Manor of the Butlers, and beside the old Norman Castle, which still looks down on the valley of Ormond, the new Church of St. Mary of the Rosary was dedicated last week. Mr. W. Doolin, M.A., Architect, Dublin, to whom the execution of the work has been entrusted, was the winner of the limited competition. The second prize of 50 guineas being awarded to Mr. George C. Ashlin (late Pugin and Ashlin), Architect, also of Dublin. Mr. John Sisk, builder, of Cork, has carried out the work. In the report submitted with the competition drawings the Architect states, as regards style, the English Gothic of the 13th century, as exhibited in some of the great collegiate Churches of Yorkshire—perhaps the most perfect development of Pointed Architecture in its severest simplicity—has been adopted with such legitimate introduction of foreign and modern elements as practical considerations dictated. The Gothic of the Lancet, or early English period, found a lasting home in Ireland, admirably adapted as it was to the building stone, as well as to the climate. The pious missionaries who, under St. Gall, St. Albert and St. Finnian, evangelized Lombardy, the Rhine Provinces, and Franconia, from their Alma Mater in the Benedictine Abbey of St. Gall, did not confine their labours to foreign lands; their influence triumphed abroad, hence there is what antiquarians are pleased to call the "Byzantine Influence in Irish Art." These "Episcopic Vagantes" ("Rapparus and Vagrant Friars," as they were called later on), were not without their influence on Architecture in Ireland; nor yet is it too much to assert that Irish features can be seen and the traditions of Cashel and Killaloe plainly recognised in the chevroned recesses of many a sculptured doorway in the valley of the Rhine or the plains of Lombardy. With this the designer's apology for some features of his Church, for which he fails to find a local precedent; it must still be admitted the Church realises a style adapted to the Irish limestone in which it is built; the slates are Irish slates; the glass, or nearly all of it, is Irish made. The leading dimensions of the various parts are as follows:—Total length (internally), 171 ft. 3 in.; total length of Nave to Chancel arch, 132 ft.; width between Aisle walls, 61 ft. 3 in.; width between centres of arcade columns of Nave, 32 ft.; width of Aisles, 16 ft. 3 in.; length of Chancel, 39 ft. 3 in.; width of Chancel, 26 ft. 6 in.; width across Transepts, 87 ft. The spire is about 199 ft. high from ground line to base of vane, the eave of Aisle 21 ft. over ground; the Clerestory is 44 ft. over ground. The height to eave of Nave from ground line is 45 ft. 6 in.; the height to ridge of Nave is 75 ft.; the height to eave of Transepts, 38 ft.; the height to ridge of Transepts, 62 ft.; the height to eave of Chancel, 40 ft.; the height to ridge of Chancel, 66 ft. The Church is heated by Messrs. Musgrave, of Belfast, on a combined system of hot air at the entrance and high pressure hot water at the Chancel. So far the decoration within is confined to stained glass, the "Rosary Window" containing a full representation of the Fifteen Mysteries, the work of Messrs. Early, Camden Street Works, Dublin.

SOCIETY MEETINGS.

Northern Architectural Association.—An excursion visit was made to Darlington by the members of this Association on the 22nd August. The party was met at Bank Top Station by Mr. G. G. Hoskins, F.R.I.B.A., a past-president of the Association, and after some time spent at St. Cuthbert's Church and the Free Public Library, inspections were made of buildings now being carried out in accordance with the designs of Mr. Hoskins, comprising the new offices for the Darlington Guardians, the Technical College, and some new business premises, the terra cotta used in all these buildings being greatly approved of, both for its excellent quality and the truth with which the Architect's detail drawings are being adhered to. The visit concluded with an inspection of the recently-erected King's Head Hotel.

Trade and Craft.

A YEAR'S BUILDING IN LEEDS.

Mr. Hainsworth, the Inspector of Buildings to the Leeds Corporation, has just presented a summary of the work carried out in his department during the year ending on the 25th of March last. The 2,242 houses shown upon 406 plans approved include 12 Villas, 42 semi-detached Villas, 518 through houses, and 1,670 back-to-back houses. The 40 miscellaneous plans were for a Church, 2 additions to Churches, 4 Chapels, an addition to Chapel, 2 Mission Rooms, 5 Schools, 12 additions to Schools, a Home for Blind, Deaf, and Dumb Children, with Class Rooms, Workshops, and Swimming Bath, an addition to the Blind Institute, an addition to the Leeds General Infirmary, 2 Banks, an Arcade, an addition to Arcade, a Club, an addition to Club, 3 Hotels and Public-Houses (rebuilding), and a task labour yard. During the year 1,681 houses have been completed and certified for occupation, including 17 Villas, 6 semi-detached Villas, 429 through houses, and 1,229 back-to-back houses. During the year 918 miscellaneous buildings were completed and certified, among which were a Church, a Chapel, 3 Mission Rooms, a Synagogue, 7 Schools, 12 additions to Schools, 2 additions to Homes for Waifs and Strays, a Clergy House, a Bank, 2 Corporation Baths, and 3 Hotels and Public-houses (rebuilding).

RECONSTRUCTION OF EGLINTON IRONWORKS.

Extensive alterations have been carried out at the Eglinton Ironworks, Kilwinning, comprising the construction of three new iron furnaces and ammonia works. The three furnaces and stoves (which latter are Ford & Montcur's patent) were lighted for the first time last week. Two of the furnaces will be devoted to the manufacture of ordinary iron, while with the third hematite iron will be turned out. Only three of the old furnaces of the Neilson pattern are now standing, and two of these have been in blast till about ten days ago. Little or no flame will be emitted by the new furnaces.

DECLINE OF ABERDEEN GRANITE TRADE.

Professor Dove Wilson, who was appointed arbiter in connection with the request by the monumental stonecutters of Aberdeen for an increase of 1d. per hour in the rate of wages, has submitted his report. He is unable to come to the conclusion that present circumstances warrant the raising of the wages. In his report the Professor makes the following important statement:—"The trade at present seems to me not to be in a thriving condition. It is largely an export trade, and the export to the Australian colonies is practically stopped, and the once very important trade with America has greatly diminished, and threatens to be extinguished altogether. Accordingly the numbers both of the employers and employed are decreasing, and there is a considerable number of unemployed men in the trade. To increase the wages would have the effect of further handicapping the employers in competing with home and American firms."

MESSRS. HENRY CONOLLY AND CO.

Messrs. Henry Conolly & Co., of London, have forwarded to us a revised and enlarged edition of their Illustrated Catalogue of Goods used in the Building Trades. The volume is a large quarto of 193 pp., arranged with an eye to economy of time and exactness of reference. The illustrations of articles manufactured and sold by Messrs. Conolly number several thousands, ranging from the latest thing in gas-burners to the most elaborate of fitted baths. The volume is further adorned by a number of whole-page representations of the Firm's workshops and showrooms. A full and apparently accurate index is appended, and the whole production is business-like and sufficing. Messrs. Conolly have added to their Catalogue a feature of practical value to the Trade, being a series of tables setting forth the "weight and capacity of water," the degree of pressure at different heads, the weights of iron piping under the rules of the L.C.C., weights of lead pipe and zinc sheeting, together with the approximate weight of wrought iron gas tubing of varying bore. These details, with others of similar value, tend to make this Catalogue something more than the usual trade compilation—indeed, a work of reliable reference on such matters as are connected with Messrs. Conolly's wide range of manufactured goods.

PRICES IN THE IRON TRADE.

There has recently appeared on the Manchester Exchange a representative of one of the largest firms of American ironfounders, who is offering iron at lower prices than those quoted by English founders, while guaranteeing it to be equal in quality. It is further stated that the Americans are not pushing surplus stocks, but are prepared to make and deliver iron here in competition with the English iron, so long as they ship it at ballast rates in cotton-laden ships coming to Manchester.

KEYSTONES.

The new Conservatory in Sefton Park, Liverpool, which has been presented to the city of by Mr. H. Yates-Thompson, at a cost of £10,000, will be opened probably in the first week in October.

THE old National Schools of St. James's, Accrington, have at last been sold to a contractor for £20, and half of the site has been disposed of privately for £2,100. The trustees originally wanted £6,400 for the site and block. The Schools were built near the commencement of the present century.

A new County School is likely to be built very shortly at Llangollen. Llangollen School stands in an important district, and a worthy and suitable building will be a great acquisition to the neighbourhood. At a recent special meeting of the Managers it was announced that of the £4,200 required, virtually £2,600 had been secured.

IT has now been decided to defer until the end of the year the formal dedication of the Battenberg Memorial Chapel in Whippingham Parish Church. There was never any expectation that the sarcophagus would be ready this autumn, but it was strongly desired that the Chapel itself should be appropriated to its new use without loss of time.

AT Bristol operations have been commenced at the Haymarket, the workmen of the Corporation being employed in removing the boundary walls and railings. It is proposed to continue the road from Union Street across the Haymarket, widening the thoroughfare leading to Bond Street, and doing away with the awkward corner at the end of the Haymarket.

AN International Art Exhibition has been held this year in the German capital to celebrate the second centenary of the existence of the Academy of Arts. Among the British artists who sent in work the sculptor, Mr. F. Onslow Ford, R.A., received a large gold medal, while small gold medals were awarded to Mr. Gotch, of Newlyn; Messrs. G. W. Joy and Waterlow and Mrs. Laura Alma Tadema, of London.

A stained glass window has been erected in St. Catherine's Church, Ventnor, in memory of Kenneth Sinclair Coghill, who fell in the battle of Krugersdorp. The window was subscribed for as a mark of sympathy with Dr. and Mrs. Coghill on the loss of their son, whose death was much lamented at Ventnor, and as a record of his bravery and self-devotion, to which many of Dr. Jameson's officers and troopers have borne testimony.

THE Blackwall Tunnel is rapidly approaching completion, and it is now practically certain that in the course of the next few weeks the actual work of boring will have been completed. Even then, however, much will remain to be done, and it is not likely that, under the most favourable circumstances, the opening ceremony can take place before the latter end of July. Her Majesty, as has been stated, is being approached on the subject, but it is generally considered at Spring Gardens that, as was the case at the opening of the Tower Bridge, the Queen will delegate the duty of inaugurating London's latest engineering triumph to the Prince of Wales, who will represent Her Majesty.



HOUSE AT CASTLEMORTON, WORCES



PHOTO-LITHO HARMER & HARLEY 3 & 44 COWPER ST FINSBURY E.C.

ESHIRE. C. F. A VOYSEY, ARCHITECT

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The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. IV., No. 83. **Wed., September 9, 1896.**

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Why not an Architectural Congress?

An Architectural Congress on broad and salient lines would serve to create lay interests, might even arouse lay enthusiasms, for Architecture. The Lay Mind, content with its inefficient and impurely conventional suburban or town dwelling, has not yet disassociated Architecture from the drier, reverent bones of Archæology. If you open the question of a Frieze, even in a company of sufficient culture, you will find at once the Classic Note assumed with a pedantic or an ignorant reference to the Elgin Marbles. It has never yet struck the lay dinner-table that the finest branch of Art is worth the toss of a chicken bone in discussion. Architecture is regarded as a gloomy subject, one never to be dissevered from the hod-carrier, the ladder, mortar-mills and a *soupçon* of "*drains* about the house?"—with an elevated nose in interrogation. The statement, savouring, at first acquaintance, of exaggeration, may be tested. The more than average man, well read, of a comfortable library, some knowledge of Painting (and the Capitals of Europe), will enquire immediately you show him, with a somewhat pathetic pride, over your house, designed by yourself: "Gravel soil? good drainage of course; one can depend upon *that*; yes, very charming view." The Public Mind never gets much above the foundations; when it soars we hear of the Bijou Family Residence, or the Cottage *Ornée*. It is not a lofty flight, and, to the professional mind, more than ordinarily disastrous, but the Public Mind manages to make a nest therein, calling it "Home," not omitting to take in an Art Annual. The Archæological Aspect of Architecture—estimable in itself, highly interesting, engrossing upon occasions, we fully admit—has been responsible for this alien public attitude to an Art which appeals, beyond all other Arts, once its sedater and sweeter tones are caught and carried onward in that Harmony of Home of which Architecture and Design are the dual composers. The public persists in taking a North View; we suggest that the Congress might turn attention to that "sunny aspect" which is ever demanded by the Public Mind in the choice of a dwelling. Yet it is one of the grosser and grotesquer of anomalies that the "sunny aspect" of the House is freely admitted in every three-line advertisement, but the brilliant Dawn of the Art itself, creative of Houses, nay, surely, of *Homes*, is more slowly recognised, more frigidly received. The British Nation is indeed in the Temperature Zone. The other week we had the opportunity to admire some very excellent and, indeed, original craftsmanship, the "very things" one would have thought, in the acquisitive parlance of shop buying, for the monied Outer World. But "lords and ladies, nay, and duchesses, have seen them and exclaimed over them, delighted over them, described them: how *sweet! how* original! how daring, how Burne-Jonesy, but—they have not bought! Those little things you see have lain in that cabinet five years—five years of enthusiasm beginning in rapture and ending in retirement." The incident springs to gables, to doorways, to mouldings, to the shapes of rooms, up till quite recent years, to weather-tilings. It has been the Spirit of I Dare Not waiting upon I Would. By slow and imbibing degrees, taking much false intoxicant and poison on the way, the Public Mind is gaining courage; it has found out the Beauty of half-tones, of self-tints, of natural colour; of the straight-speaking welcome of many directly Applied things; no longer is it necessary, in the interests of public modesty, for every internal brick and stone to wear clothes? Now that Architecture is recognised as living and human in its touch, in its tenderness, flesh and blood in its individuality and expression, the Public Mind would like the better acquaintance of a Classic and long-invited guest. But the Public Mind likes its "Association Meeting," its "Conversazione," tinctured with Art or Science, and we suggest an Architectural Congress as the first step to the ampler mutual recognition seemingly possible in these more willing days of Domestic Art.



HOUSE AT BEDFORD PARK: C. F. A. VOYSEY, ARCHITECT.

DECLINE OF THE GLASS TRADE.

AT present only about one-tenth of the glass used in this country for ordinary purposes is of British manufacture. While Continental glass firms are pouring their productions into England, the English trade is languishing, and in the last quarterly issue of the "Flint Glassmakers' Magazine," the organ of the National Flint Glassmakers' Society of Great Britain and Ireland, it is stated that the payments to the unemployed for the previous quarter were upwards of £700. This is at the rate of £2,800 a year for out-of-work allowance to the members of a society numbering only a little over 2,000. The men's own organ says:—"If we are to go on in this standstill fashion it will only be a question of a few years and we shall see more than one-third of the trade on the superannuation list." That there is something very much amiss in the trade is admitted both by masters and men. The former have no doubt about the cause, and say that the English trade can never be recovered while the present conditions imposed by the men's society are in force. The prestige of the best class of English finished glass is fully maintained, and it has held its own in the market. But much of this glass is glass for the luxurious and wealthy, and is not the class of manufacture which goes in bulk into consumption—namely, what is generally termed hotel glass, and such as is used for ordinary table purposes. For this the demand is very great and constant, and it seems to be directly owing to the action of the men's society that all but a fraction of this trade has been lost to the home producer and has passed into the hands of Belgians, Germans, and Swedes. The French make a better class of work, but are not competitors in the English market for the trade in hotel glass. One well-known glass works on the Rhine employs more men than the whole of the members of the Flint Glass-makers' Society of Great Britain and Ireland number. Yet if a reasonable working system were adopted in the English trade there is no reason why a thousand glass-workers might not be employed in England where now there are only a hundred. The society men, as a matter of fact, have for many years been masters of the situation, and are unreasonable in the maintenance of the system under which the English glass trade has been dwindling away. In 1858 there was a great struggle which cost their society upwards of £50,000, and it ended in an agreement as to the apprenticeship system, which has since greatly fettered the trade and helped to prevent its development. Instead of development, indeed, there has been continual shrinkage and contraction, and one glass house after another, not only in the principal seat of the industry, but in a number of districts, has gone out of existence. Hence it is that the men's executive are now lamenting the large number of unemployed members on their books. If English glass manufacturers had a free hand in the matter of the arrangements with glassmakers, and the men would agree to put in more hours' work, the employers, while still paying good wages, would be enabled to compete with the foreigners. As it is, glasshouse after glasshouse is being shut up, a limited number of men get very high wages, a large number get none at all, and are receiving unemployed pay from their union. The foreign producer is thriving while the English firms engaged in this industry are becoming fewer and fewer in number. Yet, even under the present trying conditions, one class of hotel glass can be made (by the aid of new methods) at a price to compete with the foreign article, and if the men would consent to work a "turn" of nine instead of six hours, it is said the trade that has drifted into the hands of the foreigner might be recaptured.

Messrs. RAKE & COGSWELL have prepared the designs and are superintending the extension of Mr. J. Bulpitts' premises, at Portsmouth.

AT a recent meeting of the Leeds City Council, the proposal to spend £15,000 upon the improvement of Wood Street was adopted.

A NEW Peal of Bells has been placed in Monaghan Cathedral. The bells were cast by Messrs. Gillett and Johnston, of Croydon.

A VISIT TO HELMSLEY AND RIEVAULX ABBEY.

WITHIN a radius of a very few miles from the railway station at Helmsley are the remains of the great Abbeys of Rievaulx and of Byland, the Priories of Newburgh and of Rosedale, the site of that of Keldholme, the interesting Church of Pickering, with its mediæval wall paintings; that of Kirkdale, with its Runic inscriptions; and that of Lastingham, with its Saxon remains and its memories of the great missionary bishop, Cedda; the military works of Ampleforth (of pre-Roman date), the Roman Camp of Helmsley, and the great Norman Castle which now overlooks the older fortification, the Castle of Gilling, reminiscent of the Fairfaxes, and of Pickering Castle and Slingsby Castle, not to mention places of so modern an interest as the Church and house of Laurence Sterne, at Coxwold, and the birthplace of Roger Dodsworth, the antiquary, at West Newton Grange. The members of the Bradford Antiquarian Society, to the number of about forty-five, recently held an excursion in this district. On arrival at Helmsley a visit was paid to Duncombe House, the residence of the Earl of Feversham, and some of the chief treasures of the mansion were inspected. The House which was

BUILT BY SIR JOHN VANBRUGH

in the middle of the last century, was burned down a few years ago, but it has since been admirably rebuilt, and its collection of paintings and marbles is of much importance. Many of the paintings are at present on exhibition at York, but the visitors had an opportunity of seeing the famous antique statue called, from a resemblance to that in the Uffizi at Florence, "The Dog of Alcibiades," and attributed to the famous Greek sculptor Myron. From Duncombe House the party drove to Rievaulx Abbey, a visit first being paid to the fine terrace on the hillside overlooking the Abbey ruins. The terrace has been described by a competent critic as "one of the finest in England." Mr. J. Norton Dickons, the President, in a short address, pointed out the chief Architectural and archæological features of the building, and said that absolutely no worthy Architectural description of the building had ever been published. Before this could be done exploration of the masses of ruins which now cover much of the site would have to be carried out. Eight or ten years ago the Rev. Canon J. C. Atkinson, when editing for the Surtees Society the charters of Rievaulx Abbey, hinted that such systematic excavations as were made, with results of extraordinary interest, at Fountains were about to be undertaken at Rievaulx. Nothing, however, has since been done, though there ought to be no difficulty in regard to funds. It is said that the shillings paid by visitors to view the Abbey exceed £100 a year, and if Lord Feversham could be induced to devote for a few years the comparatively insignificant contribution to his income to the purposes of the

EXPLORATION OF THE RUINS,

under skilled supervision, the interest of the site would be vastly increased, and the beauty of the spot need not be in the least impaired. It is a little surprising also that no good history of the Abbey has ever been written, though the materials are abundant. In some respects also the history of the institution is one of striking interest. When William the Conqueror marched through Helmsley on his way back from the Tees, he left enduring marks of his wrath over the fair face of Yorkshire, and many centuries passed before they were obliterated. There is no doubt that to Walter Espec the Augustinians owed the foundation of the Priory of Kirkham, and that he provided a home for the body of monks sent into Yorkshire by St. Bernard from the famous Monastery of Clairvaux, in Champaign. The Monastery which was settled at Rievaulx in 1131, beside being the earliest in Yorkshire, was also a most fruitful progenitor of monastic houses. For long it seems to have interested itself in missions to Scotland, and the beautiful Abbey of Melrose, the premier Cistercian Monastery in Scotland, and half a dozen others in Scotland and the Lake Country of England, are numbered among the direct heirs of the religious zeal of the colleagues of St. Bernard who laboured in the wilds of Ryedale. Terrible destruction was wrought to the lovely buildings at the dissolution of the Abbey, and the ruins now consist mainly of the Choir and Transepts of the Church, and the Fratry or Dining Hall of the monks. The Choir, however, does not seem to have been part of the original structure, but was probably added about 1240, it being a particularly lovely specimen of the Early English style. One curious feature notable in the arrangement is the fact that the main axis of the Church does not, as is the rule in England, run east and west. The circumstance is partly due, no doubt, to the fact that the nature of the ground, hemmed in between the hillside and the river, made the usual arrangement inconvenient, and partly also due to the foreign traditions of the original inmates, who were perhaps also the builders, of the Abbey, for the orientation of Churches was not so strongly insisted upon on the Continent as it has always been in England.

THE GLASGOW SCHOOL OF ART.

THE position gained by this School at the examinations and competitions of the Science and Art Department for the year 1896 is highly creditable. Eighty-nine prizes have been received in the national competition as against 74 last year, and 865 passes were made at the advanced local examinations as against 650 passes made last year. The passes in the examinations include the largest number of excellent and first-class ever yet made by the School. The National Competition results are: 1 gold medal, 5 silver medals, 12 bronze medals, 21 national books, 1 Owen Jones medal and prize, 18 prizes for sets of works, and 31 free studentships—making a total of 89 awards, being an increase of 15 on the number attained to last year. For Architectural design the gold medal, 1 silver medal, 6 bronze medals, 8 national books, and 6 prizes for sets of works were gained. For life studies, drawn and painted—1 silver medal, 1 bronze medal, 5 national books, and 2 prizes for sets of works. For design as applied to manufacturers—1 silver medal, 1 Owen Jones medal and prize, 4 bronze medals, 5 national books, and 7 prizes for sets of works. For painting still life and and from the cast—1 silver medal, 1 bronze medal, 2 national books, aud 2 prizes for sets of works. For modelling the figure—1 silver medal, 1 national book, and 1 prize for set of works. The Director of the Architectural section is Mr. W. J. Anderson, and we know of no School doing better work than this one.

THE use of Motor Cars in connection with street scavenging was recently under discussion by the Dover Town Council, and the arguments in favour of horseless vehicles were so strong that the Council decided to delay the erection of extensive Stabling accommodation on land they have purchased for a scavenging depot pending further information.

WHILE alterations were being carried out at the Empire Cycle Riding School, Tavistock Place, Russell Square, London, a small wooden box containing a large collection of gold and silver coins of the reign of Charles II., was found buried in mould under the flooring. The unearthed coins are of considerable value, and in a good state of preservation.

ALTERATIONS in High Street, Sheffield, have necessitated the removal of an old building in Mulberry Street, which, nearly a century and a half ago, was used as the Preaching Room of the Wesleyan Methodists of Sheffield. The Mulberry Street Preaching House was opened in 1757, and was then only two stories high, and the Preaching Room was about 12 yards by 10 yards in size, without a gallery, and the walls were unplastered and whitewashed. For a number of years the Methodists worshipped there, having the building twice enlarged during their occupancy of it, and having a Gallery built. It had no Architectural pretensions, being somewhat barrack-like in its appearance, standing about half way up Mulberry Street on the east side, without a single feature to attract attention to it.

THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

MEN WHO BUILD.

No. 45.

MR. CHARLES F. ANNESLEY VOYSEY.

PROGRESS in Art has always been traceable to the appearance of certain independent men, who, despising the glacier movements of the Schools, and refusing to sacrifice their individuality to any tradition, however venerable, have struck out their own line, harked back to first principles, and endeavoured to construct (or delete) their own theories of the harmonious and the beautiful. The principle holds good throughout the history of Art, from the time when Giotto first broke through the Byzantine tradition, that held Art hidebound to inflexible laws, and ventured to make pictures that were distinct in themselves, representing actual scenes, to the days which have seen the appearance of men like Constable, Millet, Corot, Monet, or Whistler. These artistic Nonconformists have been the salt of Art. Appearing irregularly, sometimes singly, sometimes in groups, their common characteristics have always been their sturdy individuality, their lofty ideals and marked originality, to which oftentimes genius may be added, for it is not always enough recognised that to be an original artist one need not necessarily be a genius, but simply a person of high ideals and independence sufficiently strong to refuse to palter with one's artistic conscience.

The Renaissance of Decorative Art that has taken place in England during the last twenty years, we owe to a group of artists and craftsmen working independently, each for his own ideals, and according to his own lights, yet with common objects and sympathies, and the subject of this paper, Mr. C. F. A. Voysey, has borne a high and honourable part in this great work, both as an Architect and as a Designer of wall papers, fabrics, and furniture.

When one thinks of it, there is cause for not a little patriotic pride in the English Renaissance. As a purely national product it has succeeded in establishing a European movement of a genuine and far-reaching kind, which is more than can be said for

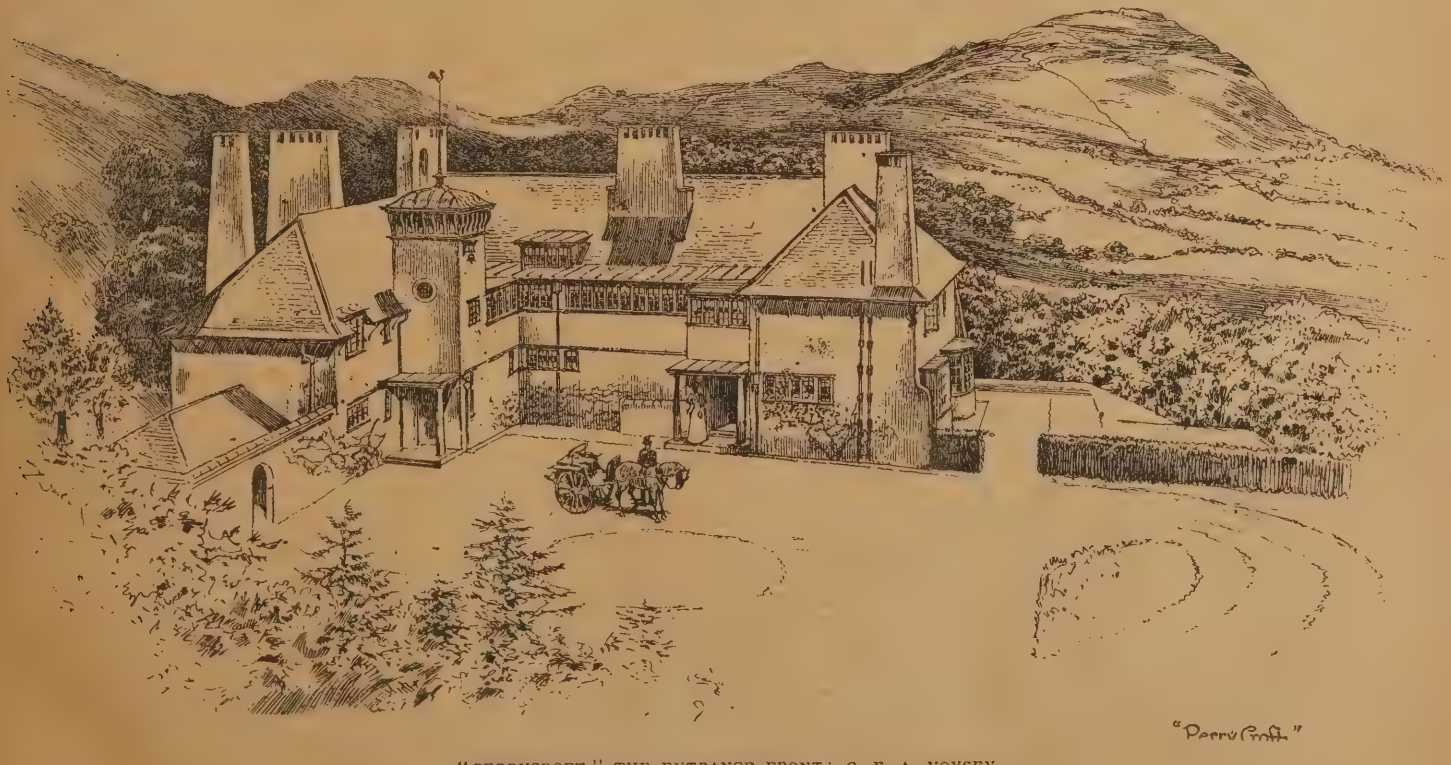


English pictorial Art, at least, since the days of Constable. Quite recently, in Paris, I was struck by the attention and the respect paid to the English Decorators, the spirit of whose work, so far removed in its severity and dignity from the luxuriance and redundance one associates with French taste, nevertheless seems to meet with the keenest appreciation in the French Capital, and by no means least as regards the productions of Mr. Voysey himself. We have in this, at least, evolved a movement that is individual and distinctive, founded upon principles that command universal respect.

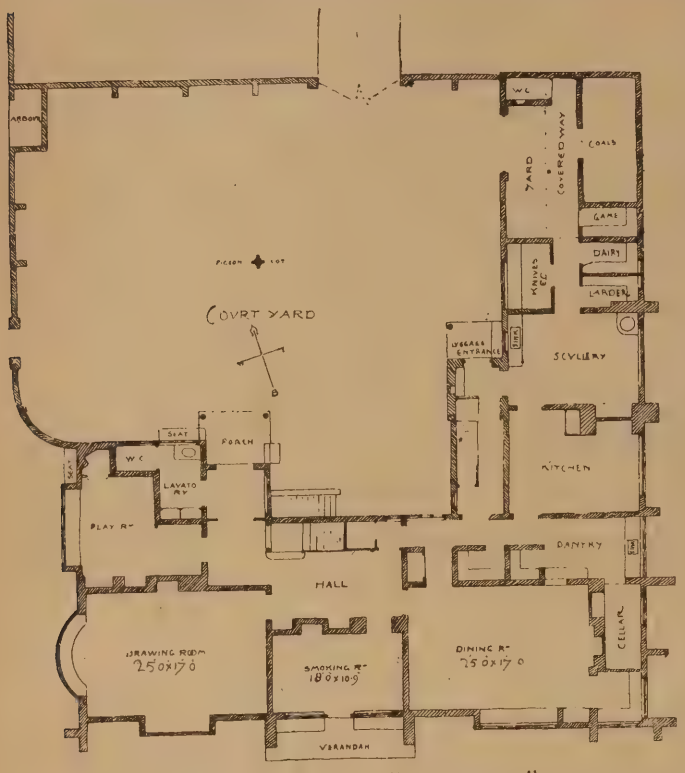
Another sign of the times worth mentioning is the change in the relative positions occupied by the workers in different branches of Art. Why the painter of easel pictures—and those only of a special kind—has so long occupied the position of "King of the Arts" it is difficult to explain. The fact that this is all changing is a token that better days for English Art generally are in store. From his lofty eminence the *genre* painter has looked with contempt upon Architecture, Mother of all the Arts, and Decoration, prime handmaid to Architecture. Now we all want to be decorative artists, and, without belittling the painter, it is only right that other branches of Art, equally important to his, should take the position to which they are entitled.

In describing a recent conversation with Mr. Voysey, upon his aims and achievements, I will abandon, so far as possible, the tiresome and artificial question-and-answer method of the formal interviewer, and endeavour to give the substance of his remarks in a coherent form.

Mr. Voysey resides in a quiet road in St. John's Wood. As the house is not his own, it is the interior rather than the exterior that bears the stamp of being inhabited by an artist and craftsman. He looks forward to the time when he will be able to build his own house. The marked features of all his work are its independence and originality. He guards these precious qualities jealously, and, to use his own words, "Never will design to please anybody but myself." He tries even to prevent those sub-conscious cerebral processes by which a designer becomes influenced, unknowingly, by the work of others, by rigidly excluding from his house all designs that are not his own. Although it is by his Decoration that he is best known to the public, Mr. Voysey is, first and foremost, an Architect. He considers everything inside the house within the Architect's province, from fittings and furniture to the very tooth brushes. He holds the loftiest views as to the dignity of the Profession, and believes that the less a client understands of the work in hand and inter-



"PERRYCROFT," THE ENTRANCE FRONT: C. F. A. VOYSEY.



GROUND FLOOR PLAN OF "PERRYCROFT."

no Style. The first principles of Design, he holds, are the conditions and the requirements of the work to be executed—in England, the climatic conditions of the country and the national requirements of the home-life that is peculiar to it.

Although the greater part of Mr. Voysey's Architectural work so far has consisted of small residential villas and country houses, such as are here illustrated, he does not wish these to be considered in any way as his particular *line*. He has simply executed them because he was commissioned to do so, and is equally prepared to devote his attention to any branch of Architecture that may be required of him. It is refreshing to find in his work that he mostly avoids the red bricks and red tiles that for so long have been considered "the thing" in our fashionable suburbs. He finds that he can obtain effects at once more dignified and harmonious with white rough-cast and green slates. Slates, he says, have many advantages over tiles: they are more durable, are less liable to injury from hurricanes or storms, and make a better roofing; and these are points that true Craftsmen cannot afford to sacrifice for effect—especially effect that is not really either tasteful or desirable. Of course, Mr. Voysey does not employ the common Bangor slates, but the green slates, which are just as easy to obtain.

The fact that Mr. Voysey has designed many cheap houses will make his work more interesting to the numerous people with good taste yet limited means, than if he had been occupied with huge mansions or public buildings. Several of the houses here illustrated have been built for quite small sums, as for instance, the "White House," Bedford Park, which, exclusive of the wing recently added, cost £500 only. For this house, by the way, Mr. Voysey has been more praised and abused than for any of his houses, and, possibly from that cause, he is inclined to feel for it rather more than the usual regret of an author for his creation. It certainly requires some hardihood to erect a "White House" in a neighbourhood wholly given up to the bondage of red bricks and tiles.

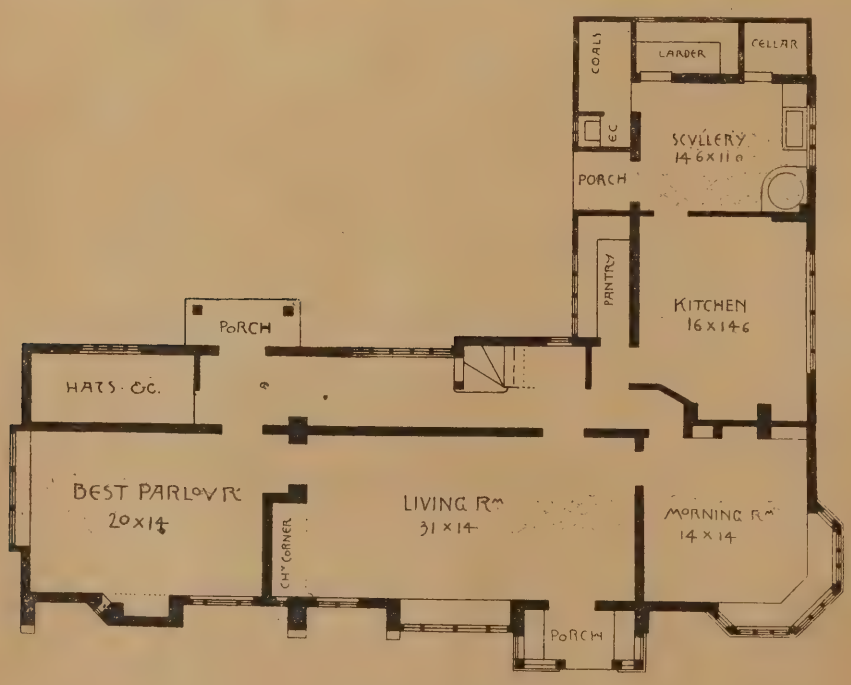
On the question of cheapness in building, Mr. Voysey has much that is very interesting to say. The great thing is to get people with limited means to understand that Art is really economical, and that a badly built house is never cheap. No one can afford to dispense with good materials. Mr. Voysey can design cheap houses, but the cheapness is not obtained by insufficient foundations and scamped materials, but by regulating the proportion of Art and obtaining stateliness and simplicity instead of elaboration. Mr. Voysey's mind is prolific of ideas, each of his houses is a special creation in itself, adapted to its site and surroundings with the utmost care and study, guided by consummate taste. He showed me another clever contrivance for opening windows that he has just invented for one of his houses, but as that is not yet patented, I am not at liberty to describe it here.

Mr. Voysey is a self-made man. All that he has done has been through his own unaided efforts. He claims lineal descent from the Wesleys', and perhaps inherits somewhat of their strongly marked individuality. But he confesses freely that the struggle has been a hard one, that he almost starved when he first tried to make his living by Design. The manufacturers wanted the usual trade designs, Mr. Voysey would not consent to make them, and it took years before his work made its way. The only assistance that he

feres with the Architect the better. "If a man goes to a doctor," he says, "he should have faith in that doctor. Similarly, an Architect should be an autocrat, and lead his client along gently in the path he thinks to be best." Mr. Voysey does not profess to design in any particular Style. But, after mature consideration, designs his building in a manner that best suits all the conditions as to situation and requirements of the house to be constructed. Formerly a man would either be all Gothic or all Classic, and could not be both; Mr. Voysey ties himself to



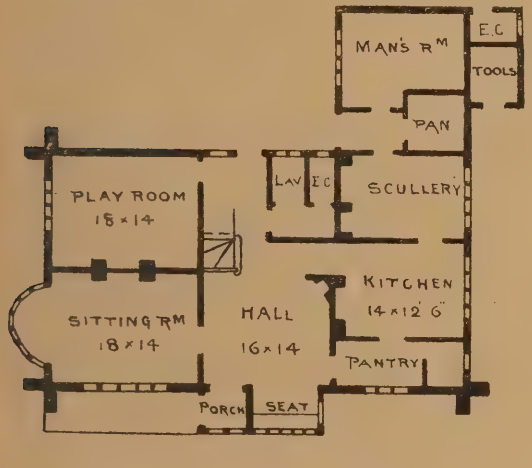
AT CASTLEMORTON, WORCESTERSHIRE—FRONT ELEVATION: C. F. A. VOYSEY.



PLAN OF CASTLEMORTON.

has received has been indirect, but he is none the less grateful on that account. More than once, in the course of our conversation, he expressed his gratitude to Mr. William Morris, the pioneer of the English Decorative Renaissance. "It is he," he said, "who prepared the public mind and educated it, and who has done for me what I might not have been able to do for myself, made it possible for me to live."

As Mr. Voysey, is perhaps, best known by his wall-papers, those who read this will naturally expect to hear his views upon the subject of the best covering for our walls, and I cannot do better than quote his opinion from one of his lectures upon the aims and conditions of the modern decorator, for he has lectured more than once upon the subject, though he hates lecturing as an agony. "Do not think that I place wall-papers first," he says, "wooden panelling, whether polished or hand-stained, is best of all; next to that comes painted panelling, but as papers wear better than the plain wall, we must permit them to exist on this ground. If, however, the room be a well-proportioned one and the furniture good, even if pictures are absent, the need for wall-papers is not apparent on æsthetic grounds; but in such a case the frieze may be treated with a pattern, either printed or stencilled, not too engrossing, but yet sufficiently important." Elsewhere he says "a wall-paper should be always sufficiently a pattern, the repeat of which is recognised as one of its chief characteristics, rather than



PLAN OF HOUSE AT FRENSHAM.

a pattern disguising the repeat, and presenting in detail interwoven pretty bits, known in the trade as 'all-over' patterns." Mr. Voysey's decorative creed he has summed up as follows: "Simplicity in decoration is one of the most essential qualities, without which no true richness is possible. To know where to stop and what not to do, is a long way on the road to being a great decorator." How he carries this out may be seen from the specimens of wall-papers and furniture here reproduced. In simplicity and Classic restraint lie their greatest charm. As he himself says: "Simplicity requires perfection in all its details, while elaboration is easy in comparison with it. Take what Art you may, and you will find only the greatest masters can be simple, or dare to be simple."

Space forbids my dwelling at greater length upon the special qualities of this branch of Mr. Voysey's work, but it is the less necessary, in that it has been exhaustively treated of elsewhere ("Studio" for May). He has introduced many new motives into wall paper design, and has suffered the inevitable penalty of success, extensive imitation.

To those who wish to decorate their homes on true principles, Mr. Voysey says, "Don't ape anybody else, and, above all, don't listen to the charming ladies who write those columns, of mingled pretentiousness and triviality called 'Decorative Home Notes,' for the weekly papers. All prescriptions for Art arrangements are poison. If a man's home expresses himself and his own taste, it will be interesting at least. What is wanted is a little more *honesty*, not mock Art, less over-decoration, and less trash in our rooms."

I will conclude with a few biographical details about the subject of the foregoing remarks. He was born in 1857, and was educated at Dulwich College and elsewhere. His grandfather was an Architect.

In 1874 he was articled for five years to Mr. J. P. Siddon, and about fifteen years ago he commenced on his own account. As I have already said, Mr. Voysey has struggled all his life against great odds, but to-day he is able to feel—to use a famous phrase—that "the flowing tide is with him."

If it be true that harmonious and æsthetic surroundings conduce to the living of gracious and convenient lives, workers like Mr. Voysey may be entitled almost to claim a moral mission.



HOUSE AT FRENSHAM, SURREY: C. F. A. VOYSEY, ARCHITECT. FROM A PHOTOGRAPH BY MR. LEONARD CROSSE.

GLASGOW TECHNICAL COLLEGE.

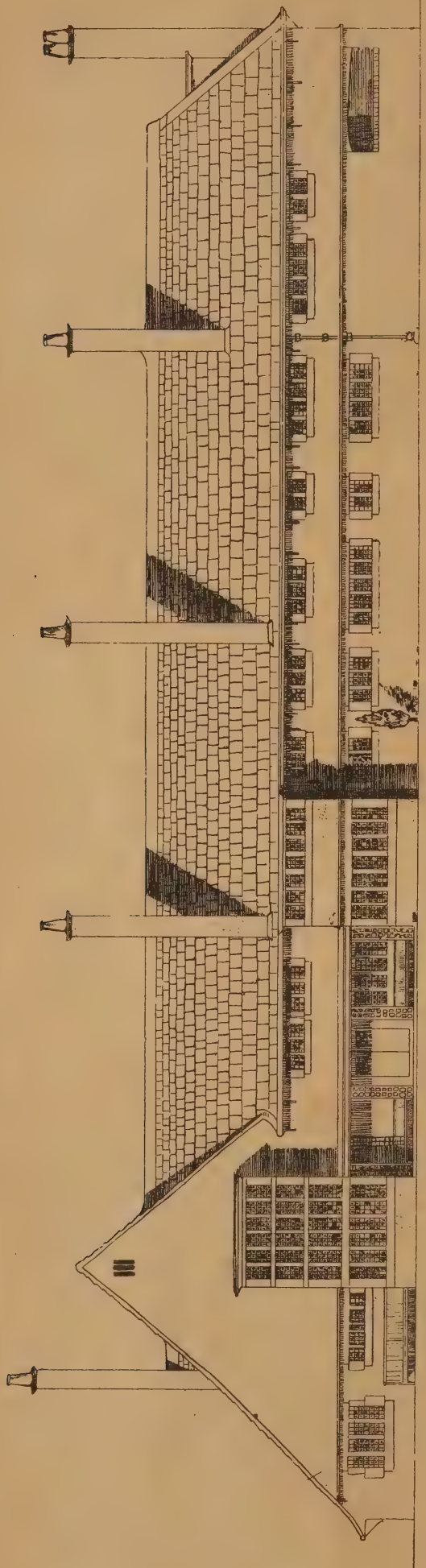
THE results of the Science and Art Department examinations in the Architectural Classes of Glasgow Technical College, in which the students attending these classes were examined, have recently been received. They show that all the students who were examined in Architecture have passed, two of whom—William M'Clelland and Thomas A. Moodie—pass excellent, seven others pass first-class, and six second-class. Two students have passed in the first-class in Architectural Design. In the National Competition James C. Walker has received a bronze medal for a design of a modern Cathedral, and Charles E. Monro a prize for his set of works which include measured drawings of parts of Glasgow Cathedral. In the Advanced Examination in Building Construction 56 students were presented, and while all have passed, no fewer than 29 take the first-class certificate. In the Elementary stage 53 pass in the old first-class standard and 13 pass "fair." In the Carpentry and Joinery Examination, Richard Wilson takes a first-class in the Honours Grade, and James S. Boyd a first-class in the Ordinary Grade, while fourteen others pass in this subject. In Brickwork and Masonry, James Anderson and James Smail take first-class and seven others pass. The large increase of students in attendance at these classes has necessitated the appointment of four additional assistants and the re-arrangement of the work of the three assistants previously engaged, whereby Mr. James Lochhead, A.R.I.B.A., now devotes his whole attention to the post of Instructor in the Architectural Studio, with Mr. W. K. Anderson as assistant. Mr. Thomas A. Moodie is Instructor in the Designing of Buildings Class in the Honours Building Construction Course. Mr. Thomas S. Fraser is Senior Assistant in the Advanced Building Class, with Mr. James M'Kissack as Junior Assistant; while Messrs. John Robb and James C. Walker are Joint Assistants in the Elementary Building Class. As hitherto, Professor Gourlay will have sole charge of the Day Classes in Architecture, and deliver all the Lectures to the Evening Classes, as well as tutorially teach the Architecture and Honours Building Classes.



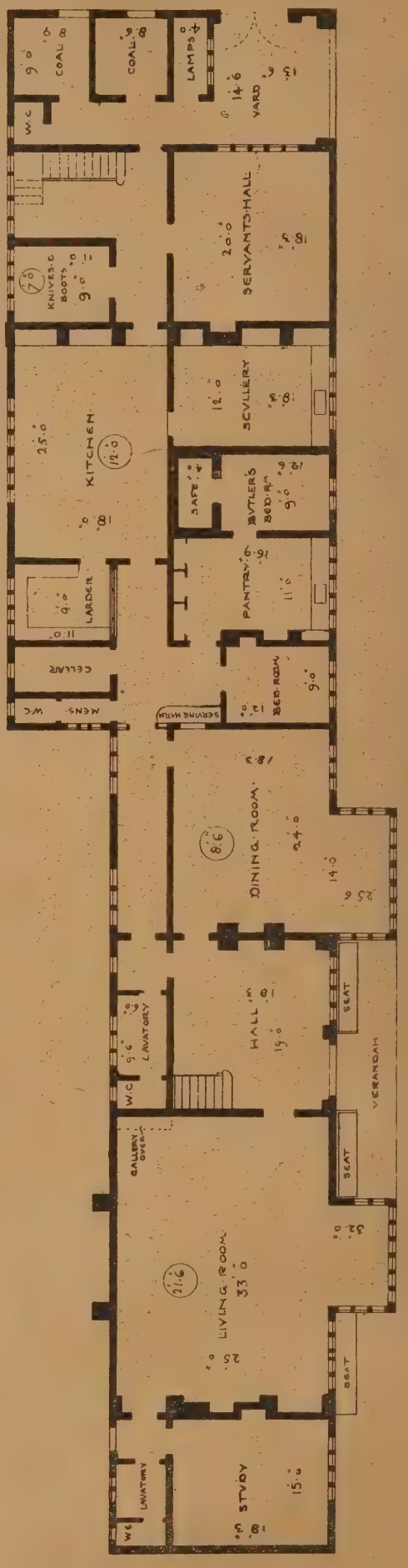
HALL OF HOUSE AT FRENSHAM. FROM A PHOTOGRAPH BY MR. LEONARD CROSSE.

DURING the absence of the Czar, English workmen are carrying out some renovating and re-furnishing operations at the Winter Palace in St. Petersburg.

THE Panels in the Judges' Lodgings at Leeds, which were painted by the late President of the Royal Academy, when he was only 18 years of age, are to be removed and placed in the Corporation Art Gallery. As he was only a student at the time, Millais did not append his signature to the work, but there is no doubt as to their authenticity.



PROPOSED HOUSE, SURREY: C. F. A. VOYSEY, ARCHITECT.



GROUND FLOOR PLAN.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
September 9th, 1896.

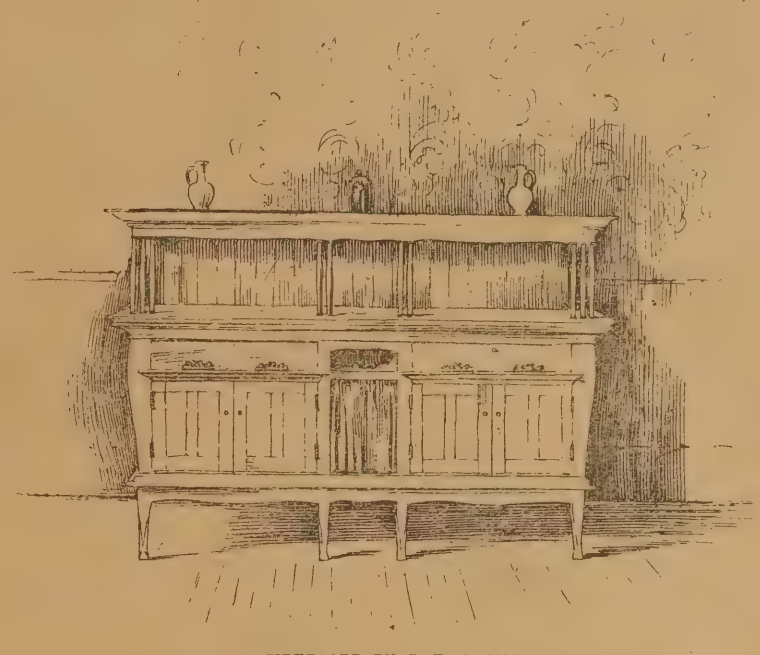
"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

CONSIDERABLE dissatisfaction is felt in Dublin that the Board of Control should have given the contract for the erection of the Portrane Buildings to a northern firm, although the tender of a Dublin firm was the lowest. True, the difference was not great. Messrs. H. & J. Martin offered to do the work for £166,666, and Messrs. Collen Bros. for £167,000. "Having regard to all the facts and circumstances, and to the terms under which the revised estimates were invited, the Board felt bound to give the contract" to the latter. The "binding" circumstances are not manifest from the letter of the Board's Secretary. It is felt, and justly may be, that the firm whose members, officials, and men will have to contribute their quota to the construction and maintenance of the Asylum should have had the preference even if the prices were equal.

UPON the subject of the West Front of Westminster Abbey, a correspondent writes:—"In a note recently you speak of 'Hawksmoor's queer pseudo-Gothic Towers'; but should not the 'credit,' or, as you put it, 'discredit,' of this work go to Wren? I have heard the remark, more than once, that 'Wren added to the Western Towers of Westminster Abbey with considerable success, considering that he hated Gothic,' and personally I agree with this remark. The upper windows of these Towers show that the designer had not caught the spirit of Perpendicular work, but, perhaps, he did not want to. Why should he, living in the eighteenth century, try to design as they did in the fifteenth? I like these Towers very much better for being able to say when they were added to by simply looking at them, instead of being puzzled as to what is genuine Perpendicular work in the West Front."

SIMULTANEOUSLY with the opening of the "Brook Hospital," Shooters Hill, under the auspices of the Metropolitan Asylums Board, a discussion took place at the meeting of the City Guardians on the alleged extravagance committed in the building of this particular institution. One critic declared that "there was scarcely a royal palace on the Continent of Europe that afforded an example of such lavish and costly appointments as this Hospital." The building had cost £500,000, and now 325 officers and servants had been engaged to wait upon 450 patients. The Rev. R. H. Hadden, a former member of the Asylums Board, ventured to plead on its behalf that it did a most praiseworthy and excellent work; but the City Guardians embodied in a resolution an emphatic protest against the extravagant expenditure referred to, and carried it by a large majority.

IT appears that the House built by Samuel Richardson, the printer and novelist, in Salisbury Square, is not in course of demolition, as the House in Salisbury Square which is being pulled down is No. 11, whereas Richardson lived at No. 12, which was acquired some years ago by Messrs. Lloyd. The House built by Richardson had a passage connected with it which communicated with Fleet Street, and that right of way Messrs. Lloyd have enjoyed for several years—since, indeed, No. 12 was acquired by them. The House which is being pulled down has recently been purchased by the firm in question. It was formerly owned by Mr. Deputy Obbard. Richardson lived in Salisbury Square, and after his death, in 1761, was buried in a vault in the church of St. Bride, hard by. Through the instrumentality of the late Mr. Joshua Butterworth, a brass tablet was put in the Church, setting forth the facts that in a vault close by the remains of Samuel Richardson were deposited, that he was born in 1689, was master of the Stationers' Company in 1754, and died on July 4th, 1761. This tablet was put up in 1889, the bi-centenary of the novelist's birth.



SIDEBOARD BY C F. A. VOYSEY.

THIS autumn the Belgian Government, in conjunction with the Chamber of Commerce authorities at Ostend, will commence work upon a very extensive and important system of Docks, which are estimated to cost three millions sterling, and which will entirely sweep away the present unsightly quays which form the old Harbour. According to the official plans, the Docks will extend inland between one and two miles. All the houses along the line of the canal which the Docks will follow have been purchased by the Government, and considerably over 100 have already been demolished. Spacious Warehouses, on the model of those at Antwerp, with promenades on the top, are to be erected on the quays, round which the railway system is to be carried; and powerful hydraulic cranes will be placed at intervals round the quays. Dry Docks are to be constructed on the north-east side of the port on the principle of those at Tilbury. The old Dock now in front of the Railway Station is to be filled in, and a park and ornamental gardens will be laid out in its place. A further improvement as part of this scheme, which will quite alter the appearance of the old portion of the town of Ostend, is the construction of a boulevard in a direct line from the Railway Station to the Kursaal, which will involve the demolition of one or two hundred more houses. The Docks will be completed in five years.

THE large blocks of Artisans' Dwellings erected by the Manchester, Sheffield, and Lincolnshire Railway Company near the site of their great London terminus, which we illustrated in our issue of August 5th, are now nearly completed. Situated at the junction of Grove Road, Grove End Road, and St. John's Wood Road, they cover an area of not less than four and a half acres, and will cost, from first to last, a sum of £250,000. They are in six blocks of about 375 feet long each, and are five stories in height, being built of yellow stock bricks with red brick facings. The roofs are finished off with flat asphalted spaces, for use as drying grounds. An item of engineering interest is found in the arduous work which went towards building the extremely heavy retaining wall, bordering Regent's Canal for a length of 550 feet. Constructed of concrete, it is 35 feet high, and broadly based on an 11 feet foundation. Accommodation will be provided in these buildings for 2,690 persons displaced by the Lisson Grove and Princess Street clearances, and a new Lisson Grove will thus be formed in the near future amid the groves and secluded villas of St. John's Wood. The Architect is Mr. Alex. R. Stenning.

A NEW submarine Boat on Poukalov's system is approaching completion at Cronstadt, and will soon be put to its trials. The boat is to be driven by electricity, supplied by accumulators sufficient to last for a two hours' run, and is to have a speed of ten knots an hour. It is adapted for travelling along the surface of the water and for submerging itself to a depth of not more than seven feet by the aid of horizontal rudders. Its use is to approach sufficiently near to the enemy's vessels effectively to launch the torpedoes which it carries without on either side. The boat is 19 feet in length, and one ton in weight, and is therefore adapted for being carried by large war vessels. Its mechanism is said to be so simple that a man may easily drive it single-handed without any special training.

THE Autumn Exhibition of Paintings and Drawings in the Galleries of the Birmingham Royal Society of Artists was opened last week. The arrangement of the hanging follows pretty much the accustomed lines, but, owing to the unusual number of large canvases, it has been found impracticable to maintain the reformed procedure instituted a few years ago of placing the water-colours in the Long Room. They are now relegated to their old abiding place in the North Room. A slight but very agreeable alteration has been made in the arrangement of the little Octagon Room. With these exceptions, the order is the same as for many years past. In point of the total of exhibited works, there are rather fewer than usual, by reason of the fact that the number of large paintings and drawings is much higher than ordinarily, and the wall-space at the disposal of the hanging committee is not elastic. What is more important than mere numbers is that the quality of the Exhibition as a whole is superior to that of any show we can recall in recent years. Mr. Jonathan Pratt and his colleagues have secured the loan of an unusually large number of pictures which have been in the Royal Academy, the New Gallery, and other Metropolitan Exhibitions, and among these are several that hold high rank among the "pictures of the year."

MUCH attention is now being directed to the serious condition of the Aberdeen Graving Dock, and there seems to be a very general impression that the only remedy for the unsatisfactory state of matters is the construction of an entirely new Dock. In the report now being drawn up by the Harbour Engineer, it is made clear that some very drastic steps will have to be taken by the Harbour Board without delay. In all directions the Dock has given way. The bottom is in many parts practically without foundation at all, and a few taps of a hammer in almost any part at once indicates the loose condition of the concrete below. When boring was tried, the boring had only proceeded five inches when water came bubbling out, and the instrument was found to be among exceedingly loose material. Then the sides in the interior of the Dock are giving way, as can be seen at a glance, and they are giving way along the whole length of the Dock. On the north side the superstructure, from a distance of about a couple of feet above the bottom level, has been bulged bodily forward, and the large concrete guard step at the bottom has been bulged both upward and outward. The stairs at the east end give very evident signs of the upheaval which is going on, particularly the stair at the south-east corner. The south side of the Dock consists of a comparatively narrow Quay between the Dock and the Albert Basin, and this is the most dangerous portion of the entire works. At the other side of the Quay, facing the Albert Basin, the superstructure towards the east end has been bulged outwards towards the Basin for a distance of 3 ft. 6 in. Piling has been resorted to, and iron stays have been put in, but these appear to have been of little effect in checking the disintegration which is evidently in progress. The Harbour Board will be asked to contemplate a large expenditure merely for a temporary repair, and the question is whether it would be better to spend, say £30,000 to £40,000 in putting it into such a state as may render it safe for some years, or spend £70,000 in providing a new Dock entirely.

THE new Harbour at Hastings, now in progress at Rock-a-Nore, consists of the construction of two breakwaters, the eastern being a concrete extension for 610 ft. of the existing No. 2 groyne, and the western and larger one (a total length of 1,750 ft.) being a curved arm running outward from a point just eastward of the Fish Market. These breakwaters will enclose a high water area of about 26 acres. The Harbour has a depth of 14 ft. at low water, spring tides, at the entrance, and of from 10 ft. to 12 ft at the landing Quays. Each breakwater will be lighted with a special light, and will be provided with a solid parapet on the seaward side 7 ft. high, and will have a line of railway along its entire length. There will be three wooden Pier Quays forming extensions of the breakwaters, and here Sheds will eventually be erected. The work is expected to occupy two years, Messrs. Punchard, McTaggart, Lowther & Co., of London, being the contractors. Their engineer is Mr. W. Kidd, Mr. A. E. Carey is the chief engineer of the Commissioners, and the resident engineer is Mr. T. W. Barber.

FROM the designs of Mr. Marden Mowbray, of Oxford, a Screen has been erected in the Bower Chapel of the parish Church, High Wycombe. The Screen is of oak, and was originally erected in the finely-moulded Early English arch on the north side of the Church. There was formerly also a Screen dividing the south Aisle from the Bower Chapel, but of a plainer design than that on the north side, consisting of five arches, the central one being a little lower and wider than the other four. These Screens were broken down in 1863, and laid by as lumber. Very little new wood was necessary in the restoration of the Screen, and very few alterations have been introduced in the design. In order, however, to lighten its character, the plain woodwork between the arches in the upper portion has been pierced, and a similar treatment has been extended to the panels in the lower part. It is a question if this latter alteration is an improvement upon the original design, as it has a tendency to lessen the weight and solidity of the base of the Screen, where those qualities are most needed. Some carved finials have been added to the dividing uprights between the arches. On the eastern side, facing inwards towards the Bower Chapel, there is the following inscription, in old English characters, some of the letters being slightly mutilated:—"Pray ye for the Soulys of Rychard Redehode, Agnes his wyfe, ther son Willm and Johan hys Wyffe, the whyche . . . . p. clos. . . . 1468." This is the original inscription, except the date, the figures of which have been substituted for the Roman numerals formerly on the Screen, but now lost.

ST. MARGARET'S, Westminster, was built within the precincts of the Abbey in 1064 by Edward the Confessor, to serve as a Parish Church for the inhabitants of the Palace. The Saxon building erected by the Confessor was pulled down in 1140. The Nave was rebuilt by the merchants of the Wool Staple in conjunction with the Westminster parishioners, the Chancel being erected at the cost of the Abbot of Westminster. The south Aisle was added during the reign of Edward IV., by Lady Billing. Whilst the south Aisle was being built the rest of the Church was "modernised" into its present style of Gothic, viz., Perpendicular. St. Margaret's, viewed from the exterior, is not impressive. It is dwarfed by the Abbey, and one looks at the two as being specimens of "dignity and impudence," but once get inside the Parish Church and all such a comparison is forgotten. There are no Transepts, just a Nave, Aisles, and quasi-Chancel, on the north side of which stands the organ in what was once the Lady Chapel. The Altar is well raised, and is backed by a Reredos, the centre portion being filled by a carving in lemon wood, evidently Italian work of the middle of the last century, representing the supper at Emmaus. Almost all the windows are filled with stained glass, mostly modern. The subjects, however, in many cases are more suited for Christmas numbers than as aids to the devotions of those who worship in the Church. Thus, in the "Gurney" window in the north Aisle, we have two winged angels holding up a scroll representing the earliest form of a motor car. In another window, also in the north Aisle, underneath a reproduction of Botticelli's "Nativity"—the original is in the National Gallery—is a representation of two very modern-looking figures in fancy dress—one in mauve and the other in heliotrope. The Queen's Jubilee window, too, in the south Aisle is, perhaps, one of the most awful specimens of stained glass in existence. But the magnificent east window atones for them all. This exquisite piece of stained glass was made, according to some authorities, at Gonda, in Holland, and was intended as a gift to Henry VII. for the Chapel at Westminster that he was building; according to others, however, it was a wedding present from Ferdinand of Spain, and was ordered to commemorate the marriage of Prince Arthur, the elder brother of Henry VIII. and Catherine of Arragon. The central light represents the Crucifixion, the Saviour on the Cross being flanked by the two thieves. This window took five years in the making. When it was finished, Arthur was dead, and Henry VIII. refused to place it in the Abbey, as he hated to be reminded that he had married his brother's widow. The window was, therefore, sent to Waltham Abbey. At the time of the dissolution of the monasteries the Abbot, Robert Fulham, sent it to his private Chapel at New Hall, Boreham, in Essex. It afterwards passed into the hands of General Monk, who buried it during the time of the Commonwealth to save it from the Puritans. It was subsequently sold in 1759 to St. Margaret's for four hundred guineas.

SPEAKING of the way in which Michael Angelo worked, Vasari says:—"I have seen Michael Angelo make more chips of marble fly about in a quarter of an hour than three of the strongest young sculptors would in as many hours, a thing almost incredible to anyone who has not witnessed it. He went to work with such impetuosity and fury of manner that I feared almost every minute to see the block split in pieces. It seemed as if, inflamed by the great idea that inspired him, this great man attacked with a species of fury the marble in which his statue lay concealed." One instance of such frenzy of labour came when Michael Angelo was a boy but fourteen years old. He had carved a faun, one of those strange woodland creatures, half goat, half man, of which the Romans are so fond, with fresh faces, tossing hair, sprouting horns, and goat's legs. Lorenzo de Medici saw the work, and was amazed at its delicacy and the richness of fancy displayed; but he began bantering the young sculptor in the easy, gracious fashion of a great prince. "Look you," said he, "these wonderful masters are not always young as you would have it; they get wrinkled brows, they are unsteady on their legs, they lose their teeth." He indicated, as he spoke, the beautiful row of teeth which adorned the smiling lips of the creature, and passed on. Then occurred a scene full of passion and pathos, and eminently characteristic of Michael Angelo. As the curtain closed upon the prince the young sculptor flew upon his faun, mallet in hand. Round about the jaw and brow he made tell-tale lines. He puckered the eyes with crow's feet, and, last of all, he placed his chisel against the creature's upper jaw, and smote a tooth away, by that one act giving the face an indescribable look of age. Lorenzo was amazed at the marvellous transformation. It was an effective introduction to the power of the young artist, and he took him into his household and brought him up with his own children.

In Derbyshire, midway between Rowsley and Bakewell, lies the village of Youlgreave, which is worth a visit if only to see the grand old Church, whose massive Perpendicular Tower rises up amidst the trees and forms a landmark for miles around. The stone of which it is built has been turned a rich yellow brown by the fury of many a tempest, and the shattered windows of the Belfry seem to gaze with a protecting care over the village which lies below. The Church has many points of interest within as well as without: the Norman and pointed arches, the massive pillars, with their curiously carved capitals, the ancient Tombs and Monuments, and, most of all, the extraordinary Font of Norman origin, with a stoup—possibly a receptacle for holy water—attached to it. This Font is sculptured in red sandstone, and looks as if the curious dragon which straggles around it had begun but yesterday his impossible task of swallowing the stoup. An interesting story is attached to this ancient piece of workmanship. It is said that at the restoration of a village Church near by, the Font was turned out and its place usurped by a new one, which the execrable taste of the eighteenth century considered of more value and beauty. The old one was removed to the Vicarage garden, there to be exposed to the violence of wind and weather. But the Youlgreave people, possibly possessed of more knowledge and taste than their neighbours, appropriated it, and placed it in their own Church, where it now stands. Opposite the south entrance of the building is a curious old sun-dial which is said to be composed of an ancient Font. In the Church are two interesting monuments. One, in white marble, is an Altar tomb, with coats of arms displayed on its sides. It is now placed in the Chancel, and bears a recumbent effigy of Thomas Cockayne, who died in 1488, mortally wounded in a duel. The other, a Crusader sculptured in stone, is much more ancient—probably of the twelfth or thirteenth century. In the north Aisle is another interesting piece of carving in white marble. It must have been originally intended for an Altar-piece, and was, as the inscription testifies, erected by a certain Robert Gilbert in memory of his wife. It represents the Virgin crowned, bearing the Child, while on the right is Robert Gilbert, with seven sons, and on the left his wife, with ten daughters. It is impossible to leave the Church without remarking the beautiful Burne-Jones window at the east end. The centre light represents "Rex Omnipotens," holding the world in the left hand, on which the right confers a blessing. The side lights show the four Evangelists, with their several emblems, each so beautiful as to make a picture in itself, yet none detracting a whit from the all-pervading tender dignity of the central figure.

IT is very much to be regretted, from the point of view of the artist and of the lover of the picturesque, that there is no public authority which would have power to prevent the desecration of beautiful scenery. Some such restraining force is greatly wanted just now at Christchurch, in Hampshire, where the famous view of the old Priory Church from the river has been hopelessly ruined by the erection of a Boathouse, which aggressively occupies a position in the immediate foreground of what used to be an almost perfect picture. This new erection is not only itself in the worst possible style of makeshift Architecture, but has been placed so as to conceal from one side the beautiful old Place Mill, a venerable building which has for centuries harmonised with the Church behind it.

ONE is glad to see scaffolding, for the purpose of considerable repairs to roof and walls, surrounding the old house in the Marylebone Road, at the corner of High Street, where Dickens spent ten of the busiest and most productive years of his life—from 1840 to 1850 — for this means a new lease of life to a building full of interesting associations. Whilst living in this roomy dwelling with its double bow front (with occasional intervals at Broadstairs) he wrote "Bleak House," "The Old Curiosity Shop," "Barnaby Rudge," "Martin Chuzzlewit," "Dombey and Son," "David Copperfield," the "Christmas Books," and "American Notes." In the garden, surrounded by a high brick wall, and on the window-sill of the novelist's study, his pet raven hopped about and kept up a ceaseless chatter to the accompaniment of the dull roar of the traffic. Here it was that Longfellow made a stay, and Forster, Maclise and Tom Hood were constant visitors.

HENRY WOODYER, who helped to restore the older Architecture of the land after the recent wave of Italian work, and whose death was recently recorded, was born at Guildford in 1816, and educated at Eton, and Merton College, Oxford, where he took his B.A. degree. About the time he left Oxford he made the acquaintance of the late Dean of Lincoln, William James Butler, then curate at Puttenham, near Guildford. Perhaps it was owing to his influence as a member of the Cambridge Architectural Society that Mr. Woodyer—then without any settled plans of life—turned his attention to Architecture, and went to work for a few months in the well-known chambers of Mr. Butterfield, in Adam Street, Adelphi. His first independent work was a new Church at Wyke, in the parish of Worklesdon, Surrey. His practice was for the most part of a more private character than that of his contemporaries. One of his earlier works was the Sisters' House at Clewer, with Orphanage, St. John's School and Hospital, culminating in the beautiful Chapel of the Sisterhood. Out of this grew buildings for the Sisterhoods at Ditchingham and Horbury, and the Hospital at Eastbourne. Churches built or restored by him may be found in many parts of the country, amongst which may be mentioned the Church at Highnam, near Gloucester, with its fine spire, built by Mr. Gambier Parry; new Churches also at Reading, Wokingham, the College and Chapel built by Sir Frederick Ouseley, near Tenbury; others near Southampton and Portsmouth; the Sailors' Chapel at St. Raphael, and Almshouses, Bristol; and many others all built on the type of old English Gothic. But, perhaps,



HANOVER CHAPEL, REGENT STREET.

Mr. Woodyer's work was best shown in his restorations of old Churches and in that most difficult work of adding to and enlarging them. Among the many restored and enlarged Churches may be mentioned the fine old parish Church at Newbury, the Church at Mells, Somersetshire, Ask in Surrey, Mitchell Dean in the County of Gloucester, Beaconsfield, Bucks; St. Helen's, Abingdon, with its five Aisles, and Churches in Surrey and Sussex. Of domestic work mention should be made of the renovation of the Hall of Eton College, additional Schools there, the School at Cranleigh, Surrey, and he also was Architect for many Parsonages, as well as Country Houses and parish Schools. Mr. Woodyer never entered into any competitions for any building, public or private, having as much work as he cared to undertake from private clients.

THE meeting of the British Association at Liverpool next month promises to be unusually successful. St. George's Hall, where the Reception Room and Offices will be situated, has been repainted and decorated at great cost. A very interesting excursion to the Isle of Man has been arranged. The excursion will extend over five days—from Thursday, September 24th, to Monday, September 28th, inclusive. The party will be divided into four sections—archæologists, geologists, zoologists, and botanists—and will be conducted by competent leaders over those parts of the island which offer special attractions for scientific study.

ANOTHER big scheme, involving the expenditure of at least £40,000, is before Torquay Town Council. Never was there a Corporation more vigorous in new and costly schemes. It was only last week that it received the Local Government Board's sanction to the expenditure of £23,000 on electric lighting works. The new scheme involves the purchase of the Dartmoor Valley in which the town's reservoirs are situated, as well as the adjoining Trenchford Valley; the removal of all the farms and dwellings from the drainage area, and the stopping of all cultivation of the soil. It is beyond dispute that the town's water supply must be increased. According to Mr. Hawksley's showing, the population supplied from the present reservoirs is 3,000 in excess of the number which they are capable of serving at the present rate of consumption. This has not been felt because the stream in the Trenchford Valley has been used to augment the reservoir supply; but those who know the Trenchford Valley best, like least the use of its water under existing conditions.

A FEW days ago a man named Matthew Donnelly, who lives in Duleek, Belfast, and occupies a garden on the site of the Old Abbey of Duleek, near Drogheda, made an extraordinary discovery. While digging in his garden he uncovered a large flagstone, over which a deposit of earth, about 3 ft. in depth, had accumulated. With the assistance of three men, the large flagstone was raised, when a cavity was revealed beneath about 10 ft. in depth and 4 ft. in width, in which lay the skeletons of a man and a horse. The human skeleton appeared to be over 6 ft. in length. No weapons, armour, or clothing of any kind were found. The sides of the cavity are built of masonry.

HANOVER Chapel, the front entrance of which we illustrate on this page, is no more. It was built from the designs of Professor Cockerell, R.A., some sixty years ago, and the Portico was the best example of revived Greek Architecture in England.

MR. J. L. PEARSON, R.A., has recently made a further report upon the West Front of the Cathedral to the Dean of Peterborough, in which he says:—I have again had an opportunity of inspecting the West Front, and under more favourable circumstances than before, for since my previous visit the whole of the upper surface of the groining has been freed from the very considerable accumulation of rubbish and dirt which covered it; the pockets of the groining have also been cleaned out. This work, I regret to say, has disclosed a state of things I had not fully realised, inasmuch as the under surface of the groining does not show how large and deep the fractures really are, nor how much it is separated from the walls, and although I had realised the fact that the filling in was not well put together, yet I had not supposed it to be so badly built as it is now found to be. The removal of the rubbish has also exposed the walling over the arches which before could not be got at, and which are found to be composed of small thin rubble stones with no mortar to hold them together, and as this condition of things extends through its whole thickness up to the dressings which form the outside surface, I think you will understand that, unless the whole is taken out and rebuilt, it would scarcely be safe to rely upon bolts keeping it in its place. The gap, to which I before alluded, which exists between the inside part of the wall and the outer part, can now be clearly seen, and anything more alarming I can scarcely imagine. Since my former visit more scaffolding has been put up to the north gable, and this enabled me to examine it more closely, and I regret to say I found it very much worse than I had believed it to be when looking at it from a lower level; it is indeed surprising how it stands in its present condition. I therefore feel bound, but with great reluctance, to suggest that this gable should be taken down and rebuilt, numbering or marking each stone of the outer surface that the whole or nearly the whole shall be replaced without alteration. The taking down of this gable will enable the great arch below to be properly rebuilt and bonded and partly straightened, and the spandrels also to be properly rebuilt with large bedded stones; it will then be possible to add the bolts I have before recommended, so that they shall have the supporting power I intended them to have, for with the walls in their present condition they would be of little or no use. The other two gables, walls, &c., are much in the same condition, and should, I think, be treated in the same manner.

IN section one of the Congress of the Sanitary Institute held at the College of Medicine, Newcastle-on-Tyne, Professor Corfield, in his inaugural address, said that, having been a teacher of hygeine in a Metropolitan Medical School for more than a quarter of a century, he thought he might say something of the progress made in the teaching of public health. All the great ancient teachers of medicine showed by their treatises that they attached the highest importance to the study of the methods for the prevention of disease, but even their treatises had not anything like the influences upon the world's history that the works of Moses had had. Moses had handed down to us the practice and teaching of the ancient Egyptians on the methods for preventing the spread of infectious diseases and preserving the health of the community. Having referred to the Roman engineers and the Greek gymnasia, remarking that there seemed to be a danger nowadays in our Public Schools of athletics being considered of more importance than mental exercises, he referred historically to the work of John Howard, the Frenchman Parent Duchaklet, Dr. Snow, Sir William Jenner, Sir Edwin Chadwick, Sir Benjamin Richardson, Dr. Edmund Parkes, and many others. He said that among our great teachers we must not forget to include Edward Jenner. Having regard to the Parkes Museum and the work of the Medical Schools, he insisted upon the absolute necessity of the proper qualification of the examiners who were to examine medical men and sanitary inspectors in hygeine. He also outlined the work to be accomplished by congresses, but said that by far the most important work was that which was done in the Class Room, the Laboratory, and out of doors, or should he say in the courts and alleys of our great towns? It was in these places that an accurate practical knowledge of public health work in its various branches could only be acquired. The acquisition of such knowledge was a labour of years, and required the devotion of a lifetime. Dr. Henry W. Newton (chairman of the sanitary committee of the Newcastle Corporation) and Mr. P. G. Griffith (Cheltenham) read papers on the vaccination and smallpox subject, and the discussion which followed was unanimously in favour of vaccination. Dr. Arthur Newsholme (medical officer for health at Brighton) read a paper which went to show that oysters and mussels taken from the banks near sewage outflow are a means of communicating disease. In the sanitary inspectors' section, a resolution supporting the Superannuation Bill of the Sanitary Inspectors' Association was adopted. Mr. Thomas Cass (Hull) urged that more attention should be paid to the drainage of factories. In the medical officers' section a discussion on the submerged tenth elicited general remarks on the importance of dealing with the young. Dr. Sims Woodhead urged the rigid registration and frequent inspection of milk supplies by both medical officers and veterinary surgeons. Dr. Wynter Blyth (medical officer of health for St. Marylebone) delivered a lecture on the isolation of infectious sick in Hospitals. He said that the provision of due hospital accommodation in a district was a duty and a necessity.

FOR the purpose of erecting Lodging Houses and Model Dwellings in groups of single Tenements, the Corporation of Manchester has decided to borrow £110,000. The new dwellings are to be situated in different parts of the city, and, in addition to erecting the buildings, the scheme involves the destruction of a great deal of insanitary property. The destruction of insanitary property has been taken in hand by various Corporations since they were empowered by the Legislature to undertake work of this character. But in this case the Manchester Corporation is going beyond mere demolition, accompanied, as it usually is, by the re-sale of the property, and intends to erect the Lodging Houses and Model Dwellings itself. The housing of the labouring population is a perplexing problem in two sorts of areas widely different from each other—the agricultural village and the big city. In the agricultural village the cottages cost but little, the sites on which they are built still less, but the wages of labour are so low that even these cottages cannot, when new and in good condition, command a rent sufficient to yield anything like a fair return for the outlay. It will be interesting to see if the Manchester authorities can succeed, where other people have failed, in confining their houses when built to those for whom they are intended.

A CORRESPONDENT writes:—"The suggestion referred to in a recent number of your Journal, that the Zuider Sea might practically be enclosed and dried up by joining the six islands that run in a continuous north-east arc from the mainland at the Helder for over 100 miles to near the German shore, is not really feasible. The Islands in question are Texel (the largest), Vlieland, Terschelling, Ameland, Schiermonnikoog, and Rottummoroog, the latter little more than a sandbank, upon which one family only lives. I happen this summer to have spent my holiday upon and amongst this interesting group of Islands, and there is certainly no actual intention in Holland to attempt to make a uniting bank of any kind between them. Indeed, to those familiar with the surroundings, the idea seems, on the face of it, practically impossible. Nieuwe Diep, the Chatham or Woolwich of Holland, is on the eastern side of the Helder, which town it joins. The sea across to Texel is several miles wide, and over it the Dutch fleet constantly steam. If the passage way was blocked, Nieuwe Diep, with its Arsenal, would be ruined. Further, Schiermonnikoog (a name derived from the old Friesian words "schier" (grey) and "monniken" (monks), freely translated meaning "The Isle of the Grey Monks," and pronounced Skim-monna-co), is fully ten miles from Ameland, its nearest neighbour, over which distance a strong sea runs. And, so far from any blocking or joining of the Islands being anticipated, Count von Berndorff, the German millionaire who now owns the whole Island, is just about starting his scheme for building a fashionable Watering place at that end of Schiermonnikoog nearest to Ameland. He means it to be a rival to Schevenuigen to the south, and Heligoland in the north. For this undertaking Mr. Georg Thielen, of Hamburgh, is the Architect, and Mr. R. Jürgens, also of Hamburgh, the Consulting Engineer."

THE members of the Iron and Steel Institute, who are holding their annual meeting at the Provincial College, Bilbao, have elected Mr. E. P. Martin, of Dowlais, as president of the Institute for the next two years. Included in the programme was the reading and discussion of a paper by Señor don Pablo de Alzola, C.E., the director of the Altos Hornos Company of Bilbao, which was of exceptional interest, inasmuch as it advocated protection for Spanish iron and steel industries:—Mr. William Gill, M.I.C.E. (of Bilbao), read an interesting paper on "The Iron Ore Indstries of Biscay and Santander," in which he dealt with the present condition and future prospects of those mining districts. He said the total quantity of iron ore shipped in 1895 from the Bilbay River was 4,214,000 tons, of which 3,122,000 tons went to British ports, and the exports of this and the adjoining districts—now rapidly developing—would probably reach 6,000,000 tons. The approximate output of the district from the commencement of modern mining operations in 1860 to the end of 1895 was about 68,000,000 tons, and it was roughly computed that about half that quantity yet remained unworked. The total number of persons employed in the mines during 1895 was 8,734 men, 62 women, and 209 boys. The hours varied with the time of the year, but there was an almost universal system of allotting to each gang of workmen so many waggons of ore and rubbish per day, and on the task being completed they could go home, or do more work, which was paid for as overtime. Feast days were numerous, and what with these and bad weather the number of effective working days in the year were about 285. Accidents were not frequent, and were principally caused by waggons running over the men or by falls of rock. The lodging, clothing, nutrition, and hygienic surroundings of the workmen fell far short of what they should be, but compared with other provinces of Spain their lot was enviable. Consequently there was a constant influx of outside labour far exceeding the work available, and in the winter time there was much distress among the people. Labour troubles, though rare, were not unknown, thanks chiefly to Socialistic agitators. One of the most interesting features of the Bilbao district was the variety of haulage systems employed for the conveyance of the ore to the railways. The haulage by bullock carts since 1881 had gradually died out, and the ore was now brought from the mines by railways, inclined planes, endless chains, or wire rope-ways worked automatically, or by steam-power. Improvements were now being made which would place Bilbao in the first rank as a commercial port and harbour of refuge. Professor Wadding, of Berlin (the Bessemer Gold Medallist), followed with a paper on "The Roasting of Iron Ores with the view to their Magnetic Concentration." Excursions were made into the Basque country and to the Oak of Guermeir, where Spanish Sovereigns knelt and swore to uphold the liberties of Basques, the castle of the ex-Empress Eugenie, a Basque festival at a watering-place; and also to the Visenyan Iron and Steel Works and the Iberian Tin-plate Works. Other papers read were: Mr. H. D. Hibbard (New Jersey) on "Sand on Pig-iron, and its Avoidance," Mr. T. W. Hogg, of Newburn Steel Works, Newcastle-on-Tyne, on what he termed "The Missing Carbon; Mr. W. Colquhoun, of Liverpool, on "A New Water-cooled Hot-blast Valve."

EXCAVATIONS are being undertaken at Furness Abbey with a view of definitely ascertaining the extent of the original buildings and the ground plan. A start has been made with the work, but some time will elapse before there is anything to show progress made.

ANCIENT ARCHITECTURE.

THE CAVE TEMPLES OF INDIA.

BY I. WILLIAMS.

TO Mr. James Fergusson we are almost entirely indebted for the earlier history of India, and for a mass of information collected during visits to the principal Caves and Temples in different parts of this vast empire. An impression has generally prevailed that the Cave Temples of India are of a date anterior to any existing remains of antiquity, and that the Arts of Persia and Egypt proceeded from India, whereas it has been clearly proved that Egypt had ceased to be a nation before the earliest of the Cave Temples were excavated. The inference that the Persians derived their forms of Architecture and ornaments from those of the Temples of India has been founded on the similarity of the capitals and columns of Persepolis to some of the Hindoo Temples, which it has been supposed were built in an older style than prevailed at the time of their erection. The ancient Monuments of India are of two kinds, the excavated and the structural, the one being cut out of the rocks, while the others are erected of different materials in the usual manner. The former are the most ancient, and were made by the Buddhists, a sect whose earliest existence cannot be dated prior to the sixth century before the Christian era. It is extremely doubtful whether they ever built Temples, as no trace of these buildings now exist, nor is any description of them to be found in the works of native or foreign writers. Mr. Fergusson considers that there is no cave anterior to the middle of the third century B.C. The Caves consist of three classes; the first of these are the Vihara or

MONASTERY CAVES,

the earliest of which are natural caverns slightly improved by Art; those which followed had a verandah opening into the cells for the abode of the priests, but without sanctuaries or images of any kind. The simplest form of these consists of one square cell with a porch, sometimes nearly 30 ft. in length; in others the verandah opened into a square Hall, on three sides of which cells are placed. Another sub-division of the Vihara Caves consists in the enlargement of the Hall, and the consequent necessity of the use of pillars. In these, besides the cells, there was a deep recess, in which the statue of Buddha was placed. The Caves at Ajunta are the finest, though good specimens may be seen at Ellora and Salsette. The Buddhist Chaitya Caves form the second class, and must be considered as the Temples or Churches, and one of them is attached to every set of Caves in the west of India; the plan of them is exactly the same, though the details and sculpture vary with the age in which they were erected. The Cave of Karli is the most perfect, and believed to be the oldest in India. It has been supposed that they were copies of the interiors of structural buildings, though no traces of such buildings exist in India, Ceylon, or beyond the Ganges. There is an external porch in all these Caves, and an internal Gallery over the entrance. The centre part of the Temple is surrounded by circular or octagonal pillars that divide it from the Aisles, and are carried round the semicircular part at the farthest end; the whole bears a strong resemblance to the arrangement of the Early Norman Churches. The Nave is twice its width, and is roofed by a waggon vault; the roof of the Aisles is generally flat. In the centre stands the Daghopa, in part of which there is always a sculptured niche containing a figure of Buddha. The third class consists of

BRAHMINICAL CAVES.

Which mostly have a great resemblance to the Vihara, though the arrangement of the pillars and the position of the sanctuary are in no instance the same. The walls are nearly always covered with sculpture, while those of the Vihara are mostly decorated with painting and inscriptions. The finest specimens are at Elephanta and Ellora; others are to be found at Salsette. The excavated Temple at Elephanta is 130 ft. long by 110 ft. wide and 14½ in height. The ceiling is flat and supported by four rows of columns, connected by a simple architrave. The columns are 9 ft. high, standing on pedestals; they are reeded and have projecting capitals of semi-circular form, from which spring the brackets of the ceiling. Against the walls are sculptured colossal human figures in high relief, which differ from each other by a variety of symbols. Of these very interesting monuments there are large numbers: at Kannari there are nearly 100, consisting of three stories, cut out of the face of the rock. In many of the Caves at Ajunta, which are 150 ft. above the ravine in which they are situated, there are remains of painting and inscriptions. The form of the arch was unknown in a structural form to the Buddhists, but was nearly always adopted in the Chaitya Temples, while in the Brahminical Caves the ceilings are invariably flat. There is another curious class of excavations cut out of the rock and which seem to be imitations of structural Brahminical Temples. They are of one block of stone, though executed in a way to convey the impression that they are erected of jointed masonry. These Temples have the appearance of standing in pits, as all the surrounding parts have been cut away, and the present level of the ground is, of course, higher than the Temples. The Kylas at Ellora, which is one of the most modern specimens of excavation in India, is, according to Mr. J. B. Seeley, 401 ft. long by 247 ft. wide, and is at the north-east angle 104 ft. deep. Round the sides of this area is a Cloister, supported on square pillars, which are covered with subjects from the Indian mythology. The centre part is occupied with the Entrance Pavilion, the Chapel of Nandi, and the grand Temple and Sanctuary. The approach to it is by a bridge, from which you descend to the Chapel by nine steps, and, passing on over another bridge, you arrive at staircases on each side, which lead to the Inner Court, the Temple, and Cloisters. On each side of the bridge are gigantic figures of elephants, and, beyond, are two carved pillars. Truly this is

A WONDERFUL MONUMENT,

and impresses all who see it, not on account of its height, its forms, the regularity of its lines, or the profuse number of ornaments with which it is covered, but by its great peculiarity of situation, which conveys the feeling of its originating from superhuman efforts. It would be a difficult matter to trace the history of the constructive buildings of Hindoostan. There is no characteristic which can be produced with certainty of all the styles of Architecture, except that their history is written in decay. The absence of the arch in all construction of every age is general, and the principle was quite unknown. The upper parts of the buildings were supported on square pillars, and from all sides of their capitals brackets projected equal to their width, and leaving generally a space equal to three diameters between their greatest projection, thus leaving only one-half of the whole length of the architrave unsupported; but when a greater space was required, a succession of projecting brackets placed above each other was adopted, sometimes meeting in the centre, thus having the effect of a horizontal arch. One of the oldest structural Monuments is that of Bobaneswar, built about the middle of the seventh century, and in a style of Art for which it is very difficult to find explanatory terms, the details being so far removed from all the ordinary forms of Architecture. In plan, the Indian Temples or Pagodas are square, the only light admitted is by the door, and darkness seems to have been considered necessary to the sacredness of the building. Of the Hindoo Temples, the largest is that at Chillambaram, which is enclosed in a rectangular space of 1,332 ft. in length by 936 in width, by walls 30 ft. in height. Here is a variety of Temples more curious than beautiful, connected by extensive colonnades and porticoes. Pyramids stand over the entrances of the outer enclosures, and consist of several floors. The Bunds or dams are among the interesting works of the Hindoos. These are made to intercept the course of small rivers and thus form an artificial lake for purposes of irrigation. On these dams, which are constructed of stone, Palaces and Temples are placed and between them broad flights of steps lead down to the water. Nothing can be more erroneous than to compare the Architecture of India with that of Egypt, or even with Classic styles to which there is no resemblance whatever. The Indian styles, whatever their defects may be, have, at least, the merit of being original.

A RELIC OF EARLY IRELAND.

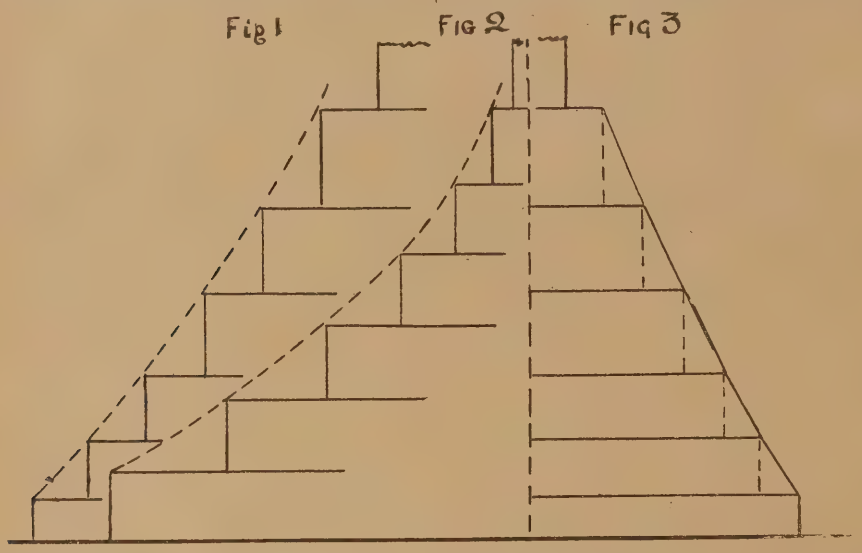
SITUATED upon the estate of the Herbert family, near the lakes of Killarney, the grey stones of the stately Muckross Abbey speak mournfully and sternly of the past. The history of these ruins dates back to the days of 1140; at least, this was the original site of an Abbey erected by the Cistercians, a community of monks noted for the massiveness of their buildings, of which many vestiges are found. In 1192 the Abbey was destroyed by fire. In the year 1340 Muckross, the ruins of which remain, was reared on the site of the original building by the famous McCarthys, Princes of Desmond. This Abbey was long known as Irelaugh, which means the Building by the Lake. The Franciscans were established here upon the rebuilding of the Abbey. The place was repaired in 1602, and again in 1626. It is kept from falling into greater decay by the care of the landlord, who has a man employed to scrape away the gathering moss and root out the weeds from the heavy stones of the floors and walls. The portion occupied by the Church is about 100 ft. by 24 ft., grey with the discoloration of age and storm, and adorned by moss and trailing vines. A stone marks the place where once stood the High Altar in the Chapel of the Monastery. At its rear was a lengthy window, the opening of which is still there. The window was of Gothic style, and at the very foot of the Altar was the tomb of McCarthy Mor. At the right hand side of the Altar was the seat occupied by the bishop, and at the left still may be seen the small opening in the ancient wall where the sacred vessels were emptied of water. The stone gutter still remains where years ago the water trickled into the earth. The ponderous doorways of stone, the arched windows and the chimney places are well preserved. That portion of the Abbey which has undergone the least change consists of four corridors supported by massive stone arches facing outward to a court which is perfectly square, the corridors framing it about. The floor of this court is merely of earth, beaten down by the tread of ages. At the angle of two-line of corridors which were used as a walk by the monks, is a double niche in the wall. According to tradition two large statues once filled these arched cavities, one being a representation of the Mother of God, as the symbol of truth and purity. Before this statue persons who were supposed to be wrongly accused of crime were accustomed to kneel and assert their innocence. On one occasion, it is said that a man guilty of murder casting himself upon his knees before the image declared his innocence of the deed. As he pronounced the words he fell forward dead. So terrible was the impression produced thereby upon the monks, that to avoid further perjury and sacrilege they bore off the statue and buried it at night beyond the Abbey walls; yet where the form of stone was hidden has not yet been revealed. The niches are empty. The Abbey is surrounded by an extensive cemetery, and on one side of the Church is a Vault known in the neighbourhood as the "Monks' Vault," it is a small compartment set in the outer wall of the Church and closed across by iron doors with immense hinges.

IT is stated that plans have been prepared for the erection by a Birmingham syndicate of 763 houses upon 23 acres of land situate in Red Lane, Coventry. Three streets will lead from Red Lane, and the whole of the houses will be easy of access from Red Lane. The houses are to be generally of 12 ft. frontage, and will have a depth of not less than 80 ft. These houses it is intended to let at 3s. to 4s. rental. A better class of house will be set back 6 ft. from the road, and will be provided with parlour, kitchen, pantry, scullery, and three bedrooms. The cost of making the streets will be about £9,000, and the total cost of the scheme £186,000.

FOOTINGS.

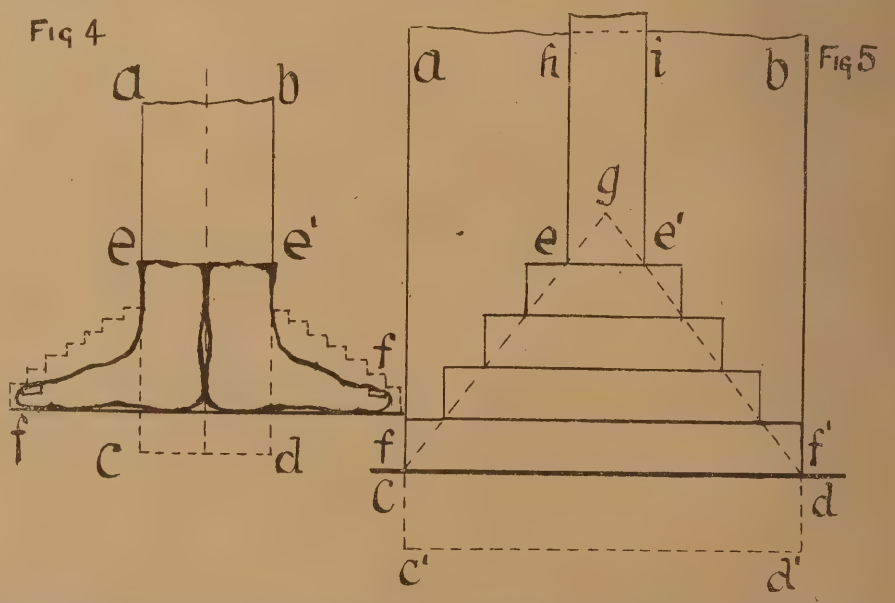
THEIR NECESSITY AND IMPORTANCE.

THE subject of Footings is not one of a light or airy nature; on the contrary, it is, or should be in practice, of a solid and substantial character. Footings possess no pleasing forms, nor are they invested with lines of beauty. Neither have Footings any attractions for the general reader, though they have an interest for the engineer and the builder. We bestow no ornamentation upon them, for they are hid in the ground. They never see the daylight, and may be submerged in damp or waterlogged soil, or founded on bed-rock, far below the surface of the ground. Nevertheless, Footings are a most important consideration in building construction, notwithstanding that the scientific principles involved in their functions are often, we know, greatly ignored. All building and engineering structures which must have substantial foundations, generally have to resort to the expedient of Footings. The Metropolis, as we know it, would have been a commercial impossibility without introducing the expedient of Footings in foundations of large buildings and structures for Warehouses, Factories, Mills, and other purposes. Indeed, we may say our commercial eminence has, in a sense, been founded upon "Footings." Footings, in the eyes of a builder, rightly are to a building what the foot is, in a restricted sense, to the human body. They obviously serve to distribute the weight over an enlarged surface. But the effectual performance of this service depends upon their being designed in accordance with scientific principles, and constructed with a due regard to the mechanical laws involved. Footings possess the further function, obviously, of decreasing the unit intensity of pressure of the base upon the soil. But do builders invariably do justice to this important principle? If so, why make all the courses with the same projections and heights, when the unit intensity of pressure decreases at each course downwards. The unit pressure is, of course, lightened in the inverse ratio that the area of the offsets is increased at the levels of the successive courses. We may be permitted to give a simple illustration, to readily show the typical operation of this function. If we have, for instance, a brick pier of a cross section of 2 ft. square, and say 10 ft. high, carrying a load of 16 tons, or 4 tons per square foot of section, which may be considered a safe load for a certain description of brickwork, though an overload for some soils. We know that if such a loaded pier is placed upon the London clay of ordinary foundation levels, it will sink very considerably, and unequal settlement of variably loaded adjacent parts cause cracks, bulges, and ruptures of the superstructure. Indeed, the consistency of the clay may be such that the Footings will continue to sink slowly for several years, until an equilibrium of the forces actuated by the load, and a reaction of the soil, is brought about. But if the area of the bottom of the pier be doubled, while its weight remains the same, the unit intensity of the pressure on the soil is just half, or 2 tons per square foot. This latter unit load most of the London clay, under ordinary conditions, will bear safely without appreciable or inconvenient subsidence. Here, then, it may be observed, if the same projection for the same height of the courses is sufficient for the intensity of the 4-ton unit level, it must be more than sufficient at the lower unit, or 2-ton level. The projection of the latter course could, for the corresponding strength, afford to be double, or inversely as the unit pressure. Or if the projections remained regular, the thickness of the course could be reduced in the ratio of the reciprocal of the square root of 2, *i.e.*, $\sqrt{2} = 1{\cdot}414$ of which the reciprocal is $\frac{71}{100}$; in other words, the thickness of the bottom course could be over one-fourth less than that of the top course. If, on the other hand, the ratio of the unit pressure at the bottom Footing course to that of the top course were one-third, the projection of the bottom course could be three times that of the top course. Or, again, the thickness of the bottom course could be the reciprocal of the square root of 3 (1·732), *i.e.*, $\frac{58}{100}$, or a reduction of $\frac{4}{10}$ in the thickness. In either case there would be a considerable economy in dimension stone; for instance, where employed in foundations of an extensive character. In many cases where we see a saving might thus readily be effected, no attempt is apparently made to economise—and why? Footings, as usually constructed by official rule-of-thumb methods, are, we know, gradually enlarged by a regular succession of equal offsets of the same thickness. This method, however, as we have said, is not scientific, though in brickwork it is practically convenient. In brickwork each offset consists of the successive courses being set back a quarter brick, say 2¼ inches. The offsets thus form parallel vertical and horizontal surfaces longitudinally on both sides of the wall, whether solid or fenestrated, alike. Curves occur only in plan where it is to correspond with circular work in the superstructure. The broadening or enlargement of the base by means of Footings obviously imparts another important property, that of lateral stability or steadiness, to prevent leaning or toppling over from wind pressure, or side thrust from any other force. Footings appear a simple affair, and are frequently so treated, or mistreated, as resulting cracks, fissures, bulges, &c., in superstructures, so frequently observable, even in good buildings, too often betray.



IDEAL FOOTINGS.

The perfect type of Footings should increase the strength and thickness of each offset in proportion to the increase of the unit pressure, so that the strength of the offset shall have a constant ratio to the pressure it sustains. We find the nearest general practical approach to this method is followed in the steel and concrete foundations of the modern tall steel frame or "cage" buildings of Chicago, New York, &c. In these concrete-embedded steel I beam Footings, which are laid in regular layers, each layer crosses the next one above it at right angles. In each layer the extreme bottom fibre of the beams are given the same unit tensile strain. This is accomplished by giving the upper layer of beams greater depth than the lower one, in proportion to the number and length of the beams in the respective layers. Considerable saving of the steel is thus effected. As steel has a much higher transverse strength than stone, it provides a larger Footing base with much less height, and structural weight of Footings upon the soil than is possible with stone. If we assume, as an illustration of this principle, a case in which landings, or large dimension stone, is used for each course of Footings, we may disregard the appropriate dimensions for the unit loads here used. Suppose, then, the load at the foot of the wall or column is 6 tons per square foot, and that it is required to reduce it to 1 ton per square foot upon the soil. Further, assume that the base plate of the column is sufficiently strong to carry the entire load upon a limited breadth of its perimeter. This condition obviates the necessity for making the entire length of the beam of sufficient transverse strength for a centre total load. A much less expensive method, however, of treating the problem is that of making the base plate strong enough for the entire load, so that only the cantilever of the length of the projection has to be considered. This method can be carried out in two ways, depending upon the governing conditions of rectangular beams and cantilevers, viz., that their moment of resistance varies directly as the breadth and the square of their depth, and inversely as their length or projection. Hence the projections may be all alike, and the heights or thicknesses of the courses varied directly as the squares in succession, as



in Fig. 1. Or, on the other hand, the thicknesses of the courses may be all alike, and only the successive projections varied inversely as in Fig. 2. In either case, the profile of the offset arises, gives nearly the same character of curve, which is of the logarithmic class. The approximate curves are shown in dotted lines. If the Footings were of concrete they could be constructed of trapezoidal blocks, as in Fig. 3. The construction of Fig. 1 depending on the square of the depths of the offsets, and representing approximately the ideal form of Footings, can be derived by the resolution of the equation $W = \frac{bd^2}{l}$ which expresses the above relative conditions of transverse strength. Then resolving for the depth, d, $d^2 = \frac{Wl}{b}$ therefore $d = \frac{\sqrt{W.l}}{d}$. Then take the square roots of the comparative unit loads W, on the successive offsets, and expressing the resultant relative heights in the nearest one-fourths of unity, the following table of the relative heights corresponding to the unit loads on the successive offsets, is the data for Fig. 1.

Tons.			Heights.
6.	$\sqrt{6}$	= 2·449 =	10
5.	$\sqrt{5}$	= 2·236 =	9
4.	$\sqrt{4}$	= 2·000 =	8
3.	$\sqrt{3}$	= 1·732 =	7
2.	$\sqrt{2}$	= 1·414 =	6
1.	$\sqrt{1}$	= 1·000 =	4

Again, if the heights of the offsets be alike, and only the projection, l, is varied, as in fig. 2, then resolving the above equation for l, we get $l = \frac{bd^2}{W}$ *i.e.*, the projection l is inversely as the load W. Hence, if we assume a projection sufficient for 6 tons of unit load as $\frac{1}{8}$ part of the length of the unit projection for the ton, the following will be the several projections corresponding to the successive offset unit loads, viz.:—

Loads.	Projections.
6 tons.	$\frac{1}{8}$ of unit for 1 ton.
5 ,,	$\frac{1}{5}$,, ,,
4 ,,	$\frac{1}{4}$,, ,,
3 ,,	$\frac{1}{3}$,, ,,
2 ,,	$\frac{1}{2}$,, ,,
1 ,,	1 ,, ,,

DEVELOPMENT OF FOOTINGS.

The prototype of Footings is readily seen in the human foot. The idea may be conceived from Fig. 4, which consists of a pair of feet placed together, heel to heel, in profile. If a rectangular figure a b c d be superposed, the footless shank is shown, which has a much less breadth of base than the combined feet. The development will appear by superposing a regular stepped series of Footing offsets, ef, e'f'. From this ideal development we can pass on to a practical one, Fig. 5, in which a b c d is a rectangular profile of a masonry pillar. Assuming that a less cross section of masonry will support the imposed weight, we accordingly reduce the breadth of the section to, say, one-fifth, and continue it down and out to the full width of base by off-setting Footings ef, e'f', to obtain the same width f'f. The weight of the massive rectangle of masonry, we assume, caused it to sink by overloading the foundation soil down, say, to c'd'. But by lightening the imposed unit load upon the soil by the amount due to the surplus masonry, a h e f, on one side, and by i b e' f' on the other side, we have obtained equilibrium of the reaction of the soil with the lightened unit load at the level of c d. We have only here shown two dimensions in the figures, *i.e.*, height and breadth, but in reality it is evident there is a third dimension, length, in order to represent weight in the assumed solidity of the masonry. In practical designing the mind must always conceive of the design in three dimensions, its height, breadth, and length, and accordingly visually represent them by plans and sections accompanying the elevation. In computing the weight of masonry a unit length of one foot is usually adopted for the solidity, thus making a cubic foot for each one foot of the two dimensions. The calculations are thereby much facilitated in working out the structural weights of the several parts.

PUBLIC BUILDINGS MAINTAINED BY GOVERNMENT.

A PARLIAMENTARY paper was recently issued giving the following list of those buildings in the United Kingdom of which the Architectural structure and fabric are maintained by Her Majesty's Office of Works, and, being of considerable interest, we publish it in full. The list is signed by the Hon. Reginald B. Brett, Secretary to the Office of Public Works and Buildings:—

Royal Palaces: Buckingham Palace (with Royal Mews), St. James's Palace, Kensington Palace, Marlborough House, Windsor Castle (with Adelaide Lodge and Frogmore House), Hampton Court Palace, Hampton Court Stud House; White Lodge, Richmond Park; Kew Palace and buildings on Kew Green, Kew Observatory; Pembroke Lodge, Thatched House, and East Sheen Cottage, Richmond Park; Bushy House, Upper Lodge, The Cottage, Hawthorn Lodge, and other houses in Bushy Park; the Banqueting House, the Wilderness House, the Pavilion, and other houses at Hampton Court; Holyrood Palace, Linlithgow Palace (ruin), Dunfermline Palace (ruin), St. Andrew's Castle (ruin), Carisbrooke Castle, Edinburgh Castle (Banqueting Hall, Argyll Tower, and St. Margaret's Chapel).

Ecclesiastical Buildings: Chapter House at Westminster Abbey; Glasgow Cathedral; General Assembly Hall, Edinburgh; Elgin Cathedral (ruin), Fortrose Cathedral (ruin), St. Andrew's Cathedral (ruin), Arbroath Abbey (ruin), Dunfermline Abbey (ruin), Dundrennan Abbey (ruin), Haddington Abbey (ruin).

Parks and Gardens: Rangers' and Superintendents' Lodges in various Royal parks; Albert Memorial, Kensington Gardens; Marble Arch and Hyde Park Corner entrance, Hyde Park; Wellington Arch, Green Park; various other buildings.

Houses of Parliament, Westminster Hall, Stables of the Speaker at Millbank.

The General Post Office and other Post Offices in Great Britain; the Custom House, Lower Thames Street, and other Customs' buildings in Great Britain; the Inland Revenue Offices in Great Britain, the County Court buildings in England, the Metropolitan Police Courts, the Sheriff Court Houses in Scotland (partially), the District Probate Registries in England; the Bankruptcy Offices, Carey Street, London, and Provincial Bankruptcy Offices; the Offices of the Surveys of the United Kingdom at Southampton, and District Survey Offices in Great Britain; Menai Suspension Bridge. Ancient Monuments of a structural character (all ruins), viz.: Pictish Towers, Glenelg, Inverness-shire; and Mousa, Shetland; and Carloway, Rossshire; Burgh of Clickanim, Shetland; Edin's Hall, Cockburn Law, Berwickshire; Ancient Chapel, Isle of Whithorn.

Other Public Buildings in London: Admiralty Offices, Agricultural Department, Bethnal Green Museum, Board of Trade, British Museum, Burlington House; Charity Commission, Whitehall; Chelsea Hospital; Civil Service Commission, Cannon Row; Colonial Office, Council Office, Education Office, Foreign Office, Geological Museum, Home Office, Irish Office; Land Registry, Lincoln's Inn Fields; Land Revenue Record Office, 6, Whitehall; Local Government Board; Local Government Board (Animal Vaccine Station, Lamb's Conduit Street); Lunacy Commission, Whitehall Place; Military School, Chelsea (Duke of York's Royal); Mint, Royal; National Debt Office, Old Jewry; National Gallery, National Portrait Gallery, Natural History Museum, Patent Office, Paymaster-General's Office; Public Works Loan Office, Bank Buildings, E.C.; Public Record Office Buildings; Royal Courts of Justice; Scottish Office, Whitehall; Somerset House, South Kensington Museum, Stationery Office; Standards Department, 7, Old Palace Yard, and adjoining Tower; Tower of London (excluding Barracks), Trafalgar Square and the statues thereon, Treasury Chambers, Treasury official residences, University of London; War Office, Pall Mall; War Office, Winchester House, St. James's Square; War Office, Horse Guards, Whitehall; War Office, Queen Anne's Gate, &c.; Waterworks, Orange Street, Trafalgar Square; Whitehall Banqueting House; Woods, Office of; Works, Office of; various minor offices, various public statues.

Other Public Buildings in Edinburgh: Parliament House and Courts of Law and Exchequer Chambers, General Register House, Royal Observatory, Local Government Board and other public offices, Science and Art Museum.

AN ANCIENT FONT.

IN THE CATHEDRAL CHURCH OF ST. NICHOLAS, NEWCASTLE.

WITH its exquisitely beautiful cover, the ancient Font of the Cathedral Church of St. Nicholas may well rank amongst the many ancient historic Fonts to be found in this country. Of the exact date of the Font itself we are not certain, but in all probability it is of the same date as the Tower underneath which it stands, and which is generally supposed to have been built about 1450. A recent writer ascribes the date of the Tower as early as 1435, but it is more likely of the former date. The Font and its pedestal are of polished marble. The design, although plain, is quaint. The shape is an octagon, each side being slightly hollowed. The sides have shields, on six of which are carved the arms of Robert Rhodes, on the seventh the arms of Agnes, his wife, and on the eighth are the two coats quarterly. The cover is of later date than the Font, probably half a century later. It is a beautiful piece of work, light and graceful, rich in detail, and is of a very pleasing design. Although there is no record to tell us who gave to St. Nicholas its Font, we think there can be no doubt but that it came from the munificent hand of Robert Rhodes, and whose arms the Font bears. The Font, although originally placed underneath the Tower, where it now stands (which is the Baptistery proper), does not seem to have always remained in this position, for a writer in the early part of this century says that it was then "standing in the north-west corner of the Chancel." It was probably removed there, because at that time service was held in the Chancel only. We learn from another writer, who wrote in 1827, that the Font was placed in the north Aisle, and was then "disused." That it was again restored to its original position at the west end of the Church we know, and at no distant date from 1827; and that it was then in "use" and not "disused." Only for a time, however, did it remain, for at the restoration of the Church, which began in 1873, it was taken down and removed to the west end of the north Aisle, where it remained until the year 1886; when improvements were then being carried out at the west end of the Cathedral, it was once more restored to its ancient position underneath the Tower. The Font would seem to have shared the fate of many of the monuments in past years, and to have had frequent coats of paint applied to it; and it is due to the renovating hand of the marble mason that we now see the Font with its polished surface, assuming its original appearance. In re-erecting the Font in 1886, another step was added, raising it higher, and greatly improving its appearance. Chains were also placed round the Font, and the cover, instead of being made a fixture, was made to move up or down.

THE Sunderland Guardians have decided to erect a new Water Tower, which will enable them to supply the Workhouse with water.

THE Blackburn Corporation is about to apply to the Local Government Board for power to borrow £25,000 to increase the present electric plant, and has suggested to the Tramways Company that the time is opportune for considering the advisability of substituting electricity for horses as the motive power on certain sections in the borough.

IN connection with Liverpool College, Huyton Hall, with its grounds, containing about 11,000 square yards, contiguous to Huyton Railway Station, has been purchased for the purpose of converting it into a School for Girls. Plans are being prepared to erect Class Rooms, Gymnasium, &c., in addition to the Mansion itself, to cost £1,500.

Professional Items.

PLYMOUTH.—A new iron Church, built at Peverell Park-road, Mutley, was recently opened. The building, which is a substantial erection and well lighted, has been erected by Mr. C. L Duke, of Plymouth, from plans prepared by Mr. R. H. Worth.

LINLITHGOW.—A new Stained-Glass Window is to be placed in St. Michael's Church. It is proposed to construct the memorial in St. Catherine's Aisle, which contains a window of great Architectural beauty in the Flamboyant style. This will be the third memorial window erected in the Church.

STRANRAER.—The Parish Church of Inch, three miles from Stranraer, has been re-opened. The old Church was almost wholly destroyed by fire, and in the erection of the new structure only the walls have been used. The Architect was Mr. Hamilton More Nesbitt, Edinburgh, and the cost will exceed £2,500.

EDINBURGH.—About twelve sets of competitive plans have been received for the Reconstruction of North Bridge Street. An assessor has not yet been chosen to assist the Council in coming to a decision as to which plans shall be awarded the premiums, but a meeting of the Committee is shortly to be held for this purpose. In our opinion it is better to appoint the assessor before advertising for plans.

CORK.—At the opening of the new Court House by the Lord Lieutenant of Ireland, it was stated that the Portico, described by Lord Macaulay as worthy of Palladio, was uninjured by the flames and remains unaltered, while the interior of the building has been reconstructed by Mr. W. H. Hill, whose plans were adopted after keen competition. Mr. Samuel Hill was the contractor.

MORECAMBE.—In connection with the alterations to the Winter Gardens, it is intended to convert the present Hall into a Ball Room and Promenade, and to clear out the present Baths and build, upon their site and the adjoining land, a fine new Pavilion or Concert Hall. Plans (in competition) are being prepared by Messrs. Maxwell and Tuke, and Messrs. Magnall and Littlewood, both of Manchester, the latter firm being the Architects for the new west end Pier and Pavilion.

PUDSEY.—Tenders have been let for the erection of the new Baptist Chapel. The design has been prepared by Messrs. Hodgson and Farrer, Architects, Bradford and Pudsey. and the cost is estimated at about £2,500. The works have been let to the following tradesmen: builder, Wm. Hutton, Pudsey; joiner, A. Whitham, Pudsey; painter, J. Shuttleworth, Pudsey; slater, A. Thompson. Stanningley; plasterer, Hill and Houghton, Pudsey; plumber, J. Scarth, Pudsey.

ST. BREAGE.—The Bishop of Truro recently dedicated the new Church School at St. Breage. Last year the Education Department condemned the existing building and required the managers to erect a new large School Room and Class Room and to convert the old room into an infant department. There is a commodious School Room and Class Room, with boys' and girls' Cloak Rooms. Mr. W. J. Jenkins prepared the plans, and Messrs. White and Thomas, of Crowan, were the contractors.

PETERCULTER.—Craigton School was opened last week. The School is externally a neat structure and internally admirably adapted for its purpose. There is an extensive playground round the School. Plans of the proposed new Schoolhouse at Craigton, prepared by Messrs. Ellis and Wilson, Architects of the School have been submitted to the School Board. The plans show a house estimated to cost from £800 to £850, and at a recent meeting it was decided that the Architects should take in offers for the necessary works.

ATHERTON.—A scheme for the erection of a new Primitive Methodist Chapel, in Alma Street, took a practical form when the Memorial Stones of a suite of Vestries were laid. It is expected that in the course of a few months steps will be taken to complete the scheme by the erection of a Chapel in front of the Vestries on land adjoining the present School-Chapel. The new building is to accommodate 500 people, and is estimated to cost £2,000. The contract has been let to Messrs. R. Rathbone & Sons, of Atherton.

THORNTON.—A Church is about to be built in the Station Road of red stone and pressed bricks, the roofs being covered with green slates. The building has been designed in the later period of Gothic Architecture, and the picturesquely treated bell turret, corbelled out from angle buttress, is effective and rather novel. There is accommodation for about 500 persons, but it is only proposed to build Nave with 250 sittings, the Transepts being left out in the meantime. The Architect is Mr. Wm. Williamson, jun., Kirkcaldy.

NORTH SHIELDS.—At the monthly meeting of the Tynemouth School Board it was decided that the plans for a new School in Coach Lane, prepared by the Architects, Messrs. Marshall and Dick, be approved and forwarded to the Education Department for sanction, and that the School furniture required be arranged for by the Board; also that the building be of brick, with stone sparingly used, and terra cotta where thought desirable, and to be heated by low pressure steam and open fires. The building proposed to be erected will provide accommodation for 510 children.

BRISTOL.—A new public Library has been erected at St. Philip's from plans prepared by Mr. W. V. Gough. The building operations were commenced by Mr. E. Walters, the contractor, last year, and the Library has now been completed, with the exception of a portion of its internal fittings. The front elevation is artistic. Within, the principal feature is a spacious and lofty Hall, which will provide accommodation for a very large number of readers. In the centre newspaper stands will be placed, while another portion of the Hall is set apart for a table for magazines and reviews.

MORECAMBE.—The plans for a large Hotel to cost £50,000 have been prepared by Messrs. Maxwell and Tuke, of Manchester. The Hotel will have Lawn Tennis and Bowling Grounds in connection; the area of land occupied by Hotel and Grounds being 12,850 yards. On the lower ground floor there will be Kitchen, Larder, Wine Cellars, eight Bedrooms, Smoke Room, Billiard Room, and Lavatories. On the upper ground floor, a Dining Room, Reading Room, Lounge, &c., and altogether about nine Private Sitting Rooms, and 89 Bedrooms for guests.

BELFAST.—Woodvale Hall, Cambrai Street, which has been erected by the Belfast Central Mission, was recently opened. The new building, which is constructed of corrugated iron with brick front and wooden interior, occupies a site at the Shankhill Road end of Cambrai Street. It is 90 feet in length and 60 feet wide, has an elevated platform, and affords sitting accommodation for about 1,000 persons. It is lofty, well lighted and ventilated, and is built much in the same style as the Grosvenor Hall, without balconies. The building was erected by Mr. Andrew Logan, builder, from the plans of Mr. Andrew Dobson.

LEEDS.—The new Roman Catholic Church, in Burley Road, is practically an extension of the Church and School which were built on the site some four years ago at a cost of about £4,000. It was originally intended that the building first erected should be entirely devoted to School work, and that a separate building, to be used as a Church, should be erected. This plan, however, was abandoned, as it was deemed more advantageous to extend the existing Church and School, and this work is at present being carried out from designs by Mr. J. Kelly, Architect, Leeds, at a a cost of £2,500, the Church being known as that of the Sacred Heart.

SHIREOAKS.—The alterations at the Church of St. Luke, which have been going on for the past few weeks, are now completed, and consist of new Choir Vestry, which has been formed by removing the Organ from the base of the Church to a Chamber over where it originally stood. A new Doorway has also been made from the new Vestry, leading into the Church. Some new Choir Stalls have also been erected, and also Priests' Stalls. A new Chancel Step has also been put down. The work has been carried out by Messrs. Bowman & Sons, Stamford. The Organ has been rebuilt and thoroughly renovated by Messrs. Forster & Andrews.

WOLVERHAMPTON.—We understand that the General Purposes Committee has decided to recommend the Board of Guardians to purchase the Perry Hall Estate at Wednesfield for the new Workhouse. It is stated that the price asked for the estate is not much more than £6,500. The area is 181 acres, while the house and buildings are estimated to be of the value of £1,000. Should this scheme be adopted, it is believed that the cost of erecting a Workhouse would amount to nearly £100,000, inclusive of the cost of the land. Several other sites have been considered by the Committee, including the Moat House property, also situated at Wednesfield.

AUSTERFIELD.—St. Helen's Church, which was built more than 700 years ago, by John de Builli, who was the son of one of William the Conqueror's more trusted followers, is sadly in need of restoration. The Church consists of a Nave and Chancel, divided by a Norman arch. The windows, one of which contains some very ancient fragments of stained glass, are insertions of a later age. The old south doorway of the Porch is a very curious and excellent specimen of the early Norman period. It is flanked on each side by two pillars, supporting an arch, with a zigzag moulding, typical of early Norman Architecture, whilst on the tympanum is a rude figure of a dragon. Mr. Hodgson Fowler, Architect, of Durham, whilst pursuing his investigations, preparatory of advising upon the restoration, made a most interesting discovery. He found, built up and hidden in the north wall, five beautiful pillars, supporting three Norman arches. It is intended to restore these arches and pillars to their original use. The Church is in a sad state of decay, and Mr. Fowler's estimate for the whole work, including oak pews and pulpit, is £1,550.

LIVERPOOL.—In consequence of the need for further accommodation for the School for the Blind, Liverpool, the committee of the Institution has decided to remove the Children's School to Wavertree. The site selected at Wavertree, adjoining the Parish Church, and abutting on the Holt Recreation Ground, consists of three and a half acres, and has been purchased, together with Wavertree Hall, which stood upon it, for £5,000. The buildings for the School have been designed by Messrs. H. and A. B. Fry, Architects, Liverpool. The old Hall will be removed, and the Schools placed somewhat higher up on the slope of the hill so as to have a south-west aspect. They form three sides of a square, and comprise Dining Hall, Music Room, a suite of modern Class Rooms with intercommunication, Dormitories, a Sick Ward with isolation Baths, including a plunge, and the necessary domestic offices, with residence for the master and accommodation for servants. The Gymnasium, which is to form one of the wings of the building, will be added after the rest of the structure has been completed. The buildings will be of red brick, plain but picturesque. They are now being proceeded with, the contract having been let to Messrs. Morrison, of Wavertree. In all, including cost of the site, the sum needed to carry out the scheme is £25,000.

TORQUAY.—The new Church of Holy Trinity, Torquay, is fast approaching completion, and will be consecrated by the Bishop of Exeter to-morrow. The site cost £1,000; the Church, with new roads, cost £9,000. The new Church has been erected on a portion of the Apsley House grounds, close by the old building, which

was opened in 1831. It has an imposing exterior appearance, and a lofty Tower and spire; but there is nothing elaborate in its construction. The general effect is good, but the details are of the simplest character. In is built in the Early English style of local limestone, with Bath stone dressings, and consists of Nave, north and south Aisles, Transepts and Chancel, with Organ Chamber on one side and Vestry on the other. The Tower stands at the north-west corner of the Nave, and with the spire rises to a height of 162 feet. The columns and arches of the Nave are of Bath stone, and the caps of the columns are left in block for future carving. The roof principals of the Nave, the Chancel and the Transept, are carried on Bath stone corbels with Petitor marble columns. The Chancel arch is richly moulded, and springs from Bath stone corbels, with Ashburton marble columns. There are two steps to the Chancel, and they are of Ashburton marble, while the Chancel will be paved with red tiles. Inside, the walls are plastered. The Aisles have wood-block floors, but the floor under the seats is of ordinary boards on joists. In addition to the main entrance under the Tower, there are three other entrances. The seating, which is entirely new, is of pitchpine, and will be stained and varnished. The windows are glazed with cathedral glass. The Church will be heated by hot water on the high pressure system, and be lit by incandescent gas burners. Inside the Church is 130 feet long by 53 feet broad in the Nave. The total length of the Nave is 101 feet. Seating accommodation is provided for about 700 persons. Messrs. Vanstone and Mumford are the builders, and Mr. E. W. Meredith, the clerk of works.

PERTH.—Important additions have been made to Sharp's Educational Institution. The additions, which give an increase of fully two-thirds to the original floor space, are situated behind the original building, between it and the east boundary of the ground. Behind the centre block of the original building there is a large Class Room, measuring 53 ft. by 30 ft., lighted from the roof. The two side wings of the old building have been extended eastwards to the boundary, and situated to the north and south of these are long one-story wings. The accommodation provided in these buildings is, in the south wing, a physical Laboratory, and a Workshop and Lecture Room in connection. The shop is fitted for the accommodation of twenty-four students at the benches. The Lecture Room is fitted with benches for the preparation of the necessary working drawings. The large Class Room can be divided, when required, into two rooms. The ground floor of the north high wing contains the modern languages Class Room, access to which is obtained from the large Class Room. The north low wing is the Gymnasium, which is the only part which is not completed. The whole of the low buildings are roofed over with light steel rafters, and are open up to the ridge. The Chemical Laboratory, with Store and Preparation Rooms and Lecture Room behind, is situated on the first floor of the south high wing. The Lecture Room is immediately behind the Preparation Room, and connected with it and the Laboratory. The Art Department, containing elementary Drawing Room, Antique and Life Room, Modelling Room, and Master's Private Room is on the first floor of north high wing. The contractors for the work were Messrs. J. and C. Hay, builders, Dundee; Messrs. Hay and Son, joiners, Perth; Mr. Peacock, plumber, Dundee; and Mr. M'Ritchie, plasterer, Dundee. The fittings were erected by Mr. Thomas M'Aulay, Dundee, and the heating has been executed by Messrs. Walker and Son, Newcastle-on-Tyne. The whole of the work has been designed by Mr. J. Murray Robertson, Architect, Dundee.

PERTH.—Extensive improvements are being carried out at Perth Academy. An adjoining property to the north of the present School has been acquired by the School Board. This property has been altered so as to form on the ground floor two Preparatory Class Rooms. The entrance door will form an extra entrance, and it, along with the windows, has been remodelled to harmonise with the front of the School. On the first floor there is a large Preparatory Class Room with a Gallery. This room can be divided by a movable glass partition fitted in the centre so as to form two Class Rooms if necessary. On the second floor there are three Class Rooms to be used chiefly for teaching music, and at the landing of the Staircase on this floor is the female teachers' private room. All these rooms are provided with fireplaces, and the floors are laid with wood-block flooring. On the newly acquired ground behind the property and next Barossa Street, a two-story building is erected. On the ground floor is a Luncheon Room 31 ft. by 25 ft., lighted by three windows from the street and reached by a passage from the Girl's Court, which leads also to the Cookery Class Room. Off this room is a Store and Scullery provided with two sinks and all the necessary fitments and fittings. On the first floor is the room for teaching drawing, lighted from the north side of the roof by four large roof lights. Off this room is a Gallery for models, also lighted from the roof by a large roof light. This building is to the north of the present writing and drawing Class Rooms. The former will be converted into additional workshops, with benches for 40 scholars. The remainder of this floor is occupied as an antique Drawing Room, which adjoins and enters from the new Drawing Room. The principal rooms are ventilated by tobin tubes and large ventilators in roof. The whole of the older building has been repaired and repainted. The contractors are:—Messrs. Fraser and Morton, builders, Perth; Messrs. Leith and Lumsden, joiners, Perth; Messrs. Frew and Son, plumbers, Perth; Mr. M'Ritchie, plasterer, Duudee; Messrs. R. Dow and Son, painters, Perth. Mr. William Watson is clerk of works, and the Architect is Mr. George P. K. Young, 42, Tay Street.

EDINBURGH —A new Church is to be erected at Fountain Hall-road to hold 600 people. Of the Early English style of Architecture, it will have three entrances in the front elevation, two of which will be by porches at the side of the main entrance, while the three two-light lancet windows in front will be flanked by two buttress pinnacles. Inside, the Church will be provided with Aisles for passages, Transepts, and a Chancel, together with an Organ Chamber. The plans do not show any Gallery. Immediately at the back there will be a large Hall, a Session Hall, Vestry, and Ladies' Waiting Room, with Lavatories for each.

ROMFORD.—New School buildings erected by the Romford School Board on a site in Mawney's Road were opened last week. The Architect was Mr. Charles Bell, and the builders Messrs. J. S. Hammond and Son, of Romford. The new buildings are designed to accommodate 650 children, and the approximate cost, including the site, is just under £10,000. The School Rooms are to take the place of the present Albion Street Schools, which have been condemned by the Education Department. They have been most substantially built, and are fitted throughout with the most approved apparatus for scholastic purposes.

BRIGHTON.—It is expected that the new Cookery School at the Elm Grove Board Schools will be completed before the end of the present month. The Architects are Messrs. Simpson and Son, and the builders Messrs. Botting and Son, and the new Cookery School stands quite separate from the other School buildings on the western side. It practically consists of one large room, 28 ft. by 22 ft., and 17 ft. 6 ins. in height, with the offices round it. The Architectural design conforms with that of the other School buildings. It is lined with tile dados, and fifty-six children can be taught in it at one time. It takes the place of the old Cookery School at the Finsbury Road School which was condemned by the Inspector as being too cramped and altogether out of date. The cost is estimated at £1,200.

MAJOR-GENERAL H. D. GROZIER, R.E., recently attended at the Urban District Council Room, Porthcawl, to inquire into the application of the Council for a loan of £8,000 for the purposes of a complete drainage scheme. There was but little opposition to the scheme.

SHEFFIELD IMPROVEMENTS.

AN EXPENDITURE OF £220,000.

APPLICATION has been made on behalf of the Corporation of Sheffield for sanction to borrow various sums of money, amounting in the aggregate to nearly £220,000. Of this total, £59,772 is needed for the purposes of the Crofts Improvement scheme, £62,205 for street paving and other improvements; £3,727 for Hillsborough and High Hazels Parks; £6,030 for the extension of Endcliffe Woods; £19,140 for the provision of a highway depot near Olive Grove; £30,354 for Public Baths; £16,009, for a Refuse Destructor in Lumley Street, Attercliffe; and £19,541 for the purposes of water supply. The £19,541 for the purposes of water supply is required for the completion of the Dam Flask Reservoir. In reference to the £6,030 for the extension of Endcliffe Woods, the Corporation already owns Endcliffe Woods—a park between thirty and forty acres in extent—and with the portion proposed to be added there would then be a lovely walk of over two miles in length. It is said to be the general desire of the ratepayers that the Corporation should not lose this opportunity for purchasing, for there is little doubt that if the site is not acquired by the Council, the land will soon be in the hands of the builders. The price is considered very reasonable. The loan for Hillsborough and High Hazels Parks is required to make walks and otherwise improve the parks. At Hillsborough, a substantial shelter and bathing sheds are to be erected. The various sums required for street paving, and also the expenditure on the proposed highway depot near Olive Grove, are required, according to the City Surveyor, Mr. Wike, at the new depot to make sidings on to the Midland Railway, and facilitate the delivery of stone for use in the city; premises will be built for the steam rollers and cottages erected for the workmen. With regard to the sum for Baths a portion of the money is required for the new Baths, which have been constructed in Upperthorpe, and £9,584 for the provision of Baths for the district of Brightside. £5,500 for the repairs of the Glossop Road Baths, and the provision of a Ladies' Swimming Bath. In regard to the destructor at Attercliffe, it is felt that the arrangements for the disposal of refuse in Sheffield are altogether behind the times and the Corporation is anxious to do something better. By their Act of 1890 the Council could in certain cases order the conversion of ashpits and privies into water closets, and they could also insist on water closets being placed in new property, and these powers are being enforced. There is, however, still a great amount of refuse to deal with, and the Corporation has purchased a site on which they are erecting a destructor. The land cost £7,763, and the remainder of the expenditure is for buildings and plant. The Crofts Improvement Scheme is to be carried out under the Housing of the Working Classes Act, 1890, and the present intention is to borrow £59,772, which is stated as the net cost of the whole scheme. In consequence of the restrictions laid down as to the manner in which the property should be dealt with, it will require the whole of the £80,000, the gross cost of the scheme. The Corporation is not allowed to deal with No. 2 Section of the scheme until it has put up certain buildings on No. 1 Section, and the same restriction applies to No. 3 Section. The present application for £60,000 must, therefore, be only considered on account.

Now that the Czar is about to visit Paris, the proposal is renewed to send back to Russia the Great Bell of Sebastopol, which hangs in one of the Towers in Notre Dame. This act, it is thought, would be a pleasing souvenir of his visit. A similar proposal was made in 1889, but it was not complied with.

ST. BENEDICT'S CHURCH, Norwich, has long been famous for the feature—which it has shared, with only one other Church in the kingdom—of a tree which, in some unexplained way, had rooted itself in the side of the tower, nearly at the summit. This curiosity was removed last week as, in the course of repairing the Tower, it was discovered that its continuance would probably endanger the whole structure.

RESTORATION OF A SCOTTISH CHURCH.

AT Arbroath last week the restored Parish or Old Church was formally opened. The old building, which was destroyed by fire early on the morning of Monday, 14th November, 1892, was built about the year 1590, being thus at the date of its destruction almost exactly three centuries old. It was largely reconstructed in 1762, and contained, with its double set of galleries, sitting accommodation for 1,400 persons. Of Architectural pretensions the building was entirely destitute. The spire —a handsome structure—was erected in 1832, and fortunately escaped the conflagration. After the burning down of the Church the question arose as to who was liable for the restoration of the building. The point occasioned a considerable amount of discussion, but eventually it was decided that the Church was a Burghal Church, and that the primary obligation to restore it lay with the Town Council. At a meeting of the Council held in March, 1893, it was agreed to invite competitive plans, and the result was that designs by several of the leading Architects in Scotland were received. Mr Hippolyte J. Blanc, Edinburgh, was appointed adjudicator, and the result of his adjudication was that the first place was awarded to plans sent in by Mr. J. J. Burnet, Glasgow. These were accordingly accepted by the Council. Delays and difficulties arose, however, and the reconstruction of the Church was not begun until 19th April, 1894. The cost of the new edifice is about £10,000, but this is exclusive of the Memorial Window which has been fixed in the east gable of the Church by the members of the Macdonald family in memory of their parents. The site of the new Church is practically that of the old building, with the exception of a small portion cut off on the Hill Place side to widen the access in Kirk Square, and improve the line of Academy Street. While undoubtedly it would have been better, so far as the old spire is concerned, to have taken Mr. Burnet's suggestion to place the main building free of the Tower, with its gable end in a line with the centre of Hill Place, such an arrangement would have permanently broken the line of Academy Street. The new Church was, therefore, restricted to the building lines of Hill Place, Abbey Street, and Kirk Square, and the whole design results from an acceptation of these lines. The plan consists of a Nave, 80 ft. long by 70 ft. high, a double Transept on the north side, and a Chancel parallel with the Nave. The Nave occupies the greatest length of the site, and the Church is amply lighted. The main entrance is from the corner of Abbey Street and Academy Street, and forms a decorated feature in the centre of Hill Place. Other doors permit of egress to Kirk Square and to Abbey Street, where the stair to the Gallery breaks the line of the Transept roof. The whole building is worked out in the style represented by the Arbroath and other Scottish Abbeys. Externally the treatment is exceedingly simple, the grouping of masses counting for more than the detail. Internally, however, a richer finish has been adopted, and the panelling of the walls, the front of the Gallery, the Organ case, the Municipal Pew, are richly treated with carved wood. The main line of the front of the Gallery is carried round the Nave, broken only at the one end by the main Entrance Porch, and at the other by the Organ case, which covers the blank wall caused by the position of the Tower, and is treated as a Reredos for the Communion Table. The area of the Chancel is treated as a Session House, but the screens dividing it from the Chancel can be removed when the space is required. The Nave, which from its great height and the fact of its having no Gallery and an open timber roof has a Cathedral-like appearance, is lined to a height of 14 ft. with wood, the panelling and decoration being carried out in the Italian-Gothic style, the whole having an excellent effect. The Screen, like the remainder of the work, is the design of Mr. Burnet, and has been executed by Mr. John Craig, Glasgow, who likewise carried out the carving work throughout the Church. The Screen is distinguished by several elaborately wrought Gothic finials and a chastely designed figure in the centre. Formerly the main entrance to the Church was from Kirk Square, the doorway being in the base of the steeple. This doorway has now been closed up, and the entrance has been placed at the north-east corner of the building facing Hill Place. The Entrance Porch consists of three archways with carved finials in stone, the centre being occupied by a canopy with pedestal on which a statuette can be placed—a feature which has been carried through the whole ornamentation and decoration of the Church. The Gateways are hung with wrought iron gates of Gothic design, and made by Starkie, Gardner, and Co., London. Double doors lead into the Vestibule. Over the main doorway into the body of the Church is an inner Porch of wood, which has been executed by Mr. David Farquhar, joiner, Arbroath, who has likewise carried out the whole of the joiner work. Over the main stairway to the Gallery is also a distinguishing feature. The inside of the whole of the doors has been lined with embossed Tynecastle cloth, and have been stained in a rich old-gold colour. The total number of sittings is 1,321. A back Gallery over the main entrance could at any time be formed without destroying the general effect, and would give additional accommodation to the extent of 80 seats. The following is a list of the tradesmen employed:—mason, Andrew Fife, Arbroath; wright, David Farquhar, Arbroath; slater, William Brand, Arbroath; plumber, Joseph Anderson, Carnoustie; plasterer, G. A. Campbell, Arbroath; heating engineer, James Keith, Arbroath; ironmongery, Highet and Roxburgh, Glasgow; interior timber finishing, John Craig, Glasgow; painter work, J. and W. Guthrie, Glasgow; stone carving, William Vickers, Glasgow; gas-fittings, railings, and gates, Starkie, Gardner, and Co., London.

SOCIETY MEETINGS.

The Glasgow Architectural Association.—A meeting of the above Association was held at the Rooms, 187 Pitt Street, on Tuesday evening, the 1st inst. Mr. McGibbon, the hon. president, read a paper entitled: "A Review of Recent Glasgow Architecture," and said the work done during the past decade had been influenced by their purpose and by the materials employed. Gothic, to-day was dormant, if not dead, unless for Church work. Buildings might be classified according to their purposes, such as Ecclesiastical, Domestic, Civic, Commercial, &c., or we may take materials, say of stone, plaster, metal, glass, tiles, &c. Delicacy has lost favour, such as the work we have in the Faculty Hall and the New Club. Referring to Church work, the essayist pointed out, the only Classic building recently executed was that at Langside. The Schools were altogether of a substantial description, well provided with all the essentials, handsomely paved, well lit, &c. Insurance companies within the last few years had been, perhaps, the most generous patrons of public Architecture. In the Equitable, the fact of its being an English office, is fittingly expressed in an Englishman's design in English brickwork. Banks, in Glasgow, are the most sumptuous of the domestic buildings. The work of the Corporation is more varied than it used to be. In all these works there is a commendable absence of prettiness. The Baths, in essayist's opinion, should be arranged more as places of public resort. The Tenements generally were of a commonplace description, but one or two instances were given of a really superior class of building. The Bridges and Chimney Stalks were referred to, and the people of Glasgow were commended in allowing such interesting and worthy landmarks to remain as the Tron Church and Mary's Church, &c. This very interesting paper was ultimately brought to a close by a hearty vote of thanks to the President.

AT St. Thomas, Plymouth, the Urban District Council proposes to borrow £7,210 for works of sewerage and sewage disposal.

THE Organ erected in the Free West Church, Perth, by Messrs. Walker & Sons, has been formally opened. The cost of the Organ and structural alterations was about £1,000.

KEYSTONES.

THE Commissioners of Northern Lighthouses have approved of the erection of a new Lighthouse and Fog-Signal Station at Blackhead, about three miles north of Portpatrick Harbour.

A BRANCH of the Dundee Free Library has been opened at Lochee, which forms a section of the buildings presented to the community by the late Mr. Thomas Cox.

COLONEL JOHN STEWART, of Ardvorich, has handed over to the authorities of the Parish Church at Dundurn, near Crieff, the old holy-water Font of the ancient Chapel of Dundurn.

THE Whitley Memorial Fountain in Shaw Street, Liverpool, has been formally handed over to the Corporation by the Memorial Committee.

CONTRACTS are on the point of being signed for the north block of the Admiralty buildings at Spring Gardens. It is probable that operations will be actually commenced about the middle of the present month.

ADVANTAGE is being taken at the absence of Mr. Balfour to extend the system of electric lighting at the official residence of the First Lord of the Treasury in Downing Street. The electric light has been for some time in use in some of the principal apartments, but during the present recess the system will be made general throughout the establishment.

AN act of official vandalism has been perpetrated at Spalato, in Dalmatia, the Great Palace of Diocletian. The beautiful Romanesque Tower on Roman foundations at the entrance of the Emperor's Mausoleum has been torn down, and a new Tower is rising in its stead, into which capitals and sculptured stones of all dates from the third century to the twelfth are being built.

A MOVEMENT is on foot, under the auspices of the City of London Swimming and Life Saving Association, for a proposed Swimming Bath to be moored in the Thames, close to Blackfriars Bridge. Some thirty of the important City houses have promised subscriptions to the amount of £5,000, and should the Thames Conservancy grant the site the Corporation will be asked to take the matter up and provide more money.

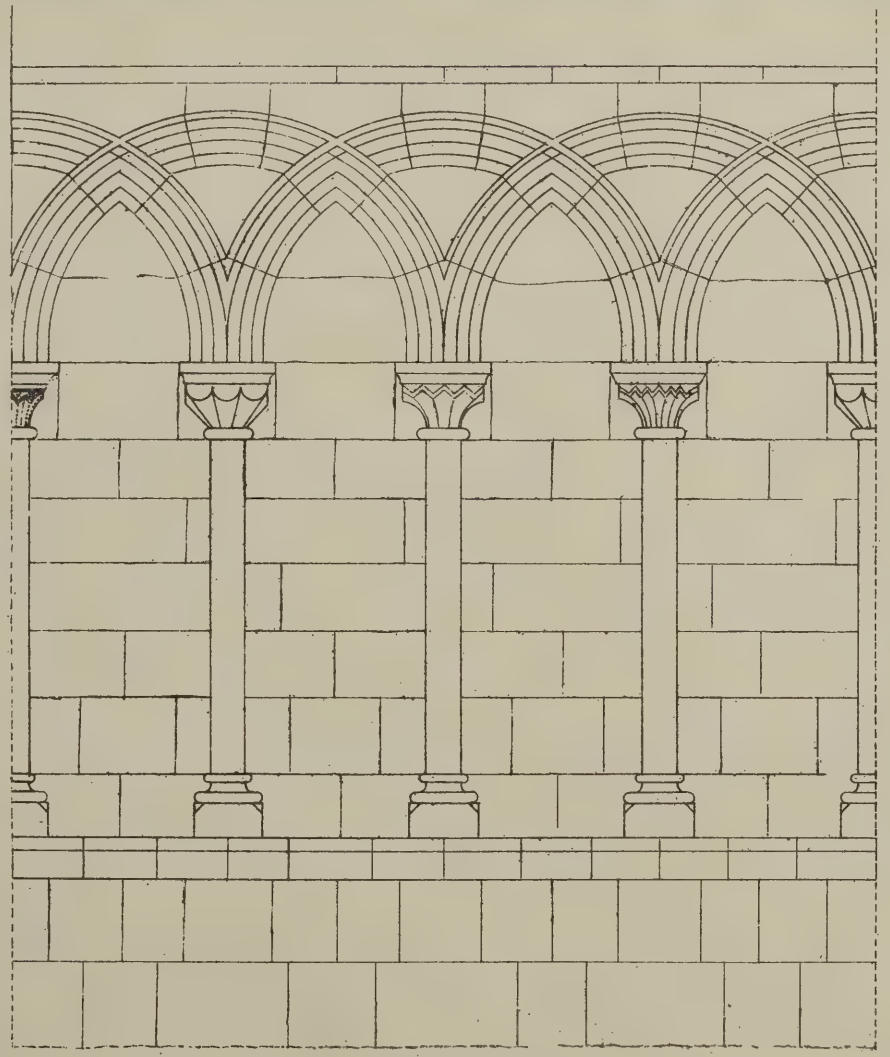
DURING the past few days the striking apparatus of the Clock Tower of the Houses of Parliament has got out of order, with the result that the usual hours have not been struck on Big Ben. Messrs. E. Dent & Co., the makers, who have been called in, report that the striking apparatus, which has been exposed to the inclemency of the weather for nearly forty years, has quite worn out. They have therefore received instructions to repair it.

THAT historic building in Dublin, the Leinster Hall, the scene of the Irish Convention meetings, is to undergo a metamorphosis. Mr. H. H. Morell, in conjunction with Mr. F. Mouillot, have bought the building, which is to be converted into a Theatre and Opera House. The site is not without interest, for it includes the ground occupied by the old Theatre Royal, where Charles Kean, Macready, and the Kembles won some of their many successes.

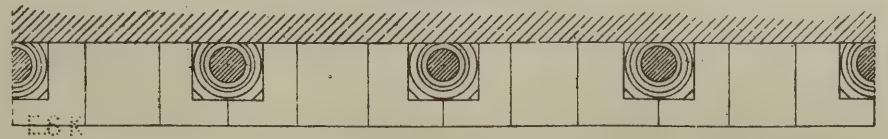
AT a recent meeting of the Liverpool City Council it was resolved that an application for a provisional order be made to the Local Government Board to alter and amend certain provisions of the Liverpool Local Acts so as to require the width of all new streets to be at least 36 ft., in lieu of 33 ft.; all back passages to be at least 9 ft. wide, in lieu of the present requirements, and all back passages exceeding 300 ft. in length to have a cross passage; also that all back streets or back passages of 9 ft. wide, when constructed to the satisfaction of the Council, be adopted by the Corporation.

THE interesting and unique Lamp Columns which surround the Foreign Office Quadrangle are in process of being taken down either for purposes of repair or replacement. Each column comprises some nine sections, and while the main portion is of ordinary cast-iron, the collars and general ornamentation, including some delicately executed figures grouped round each post at a distance of four or five feet from the ground, are of gun-metal which was obtained by the smelting of guns captured by the British forces from their enemies in some of the historic battles. These castings are being removed and stored with great care to prevent damage.

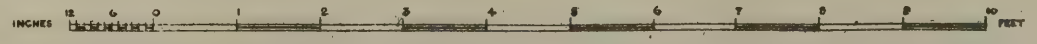
NORMAN ARCADE • BOLTON ABBEY • YORKSHIRE.

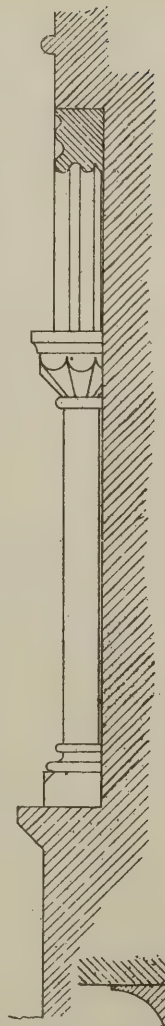


ELEVATION



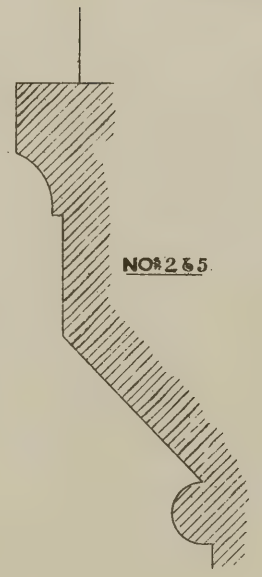
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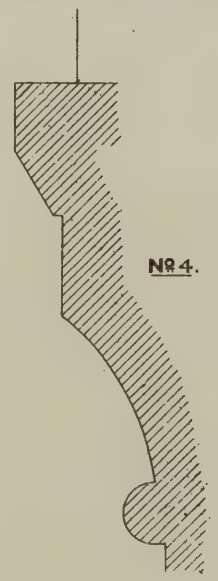


SECTION THRO' ARCH

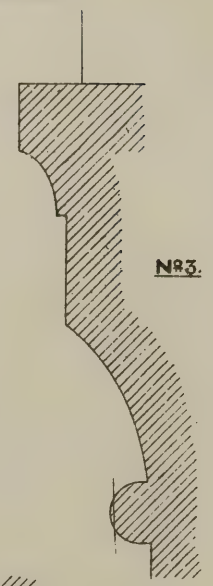
SECTIONS THRO' CAPITALS.



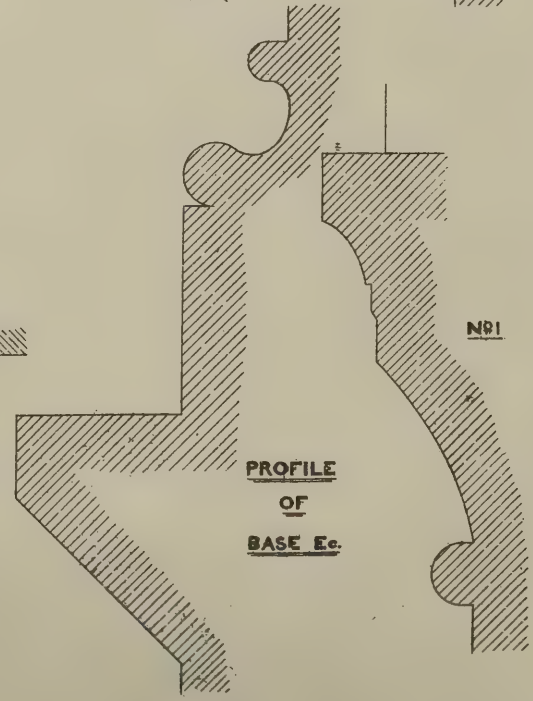
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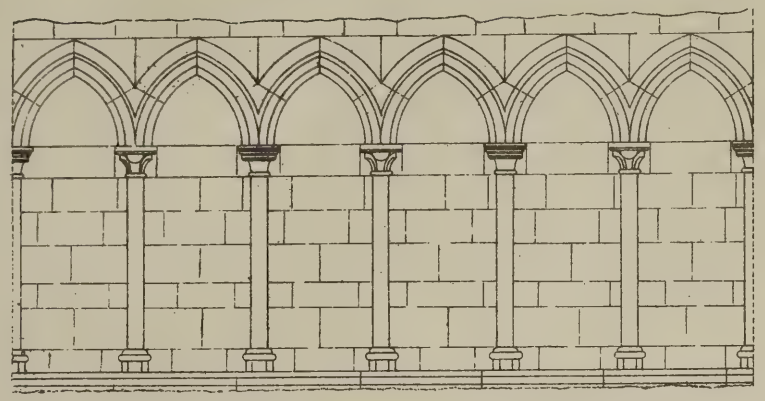


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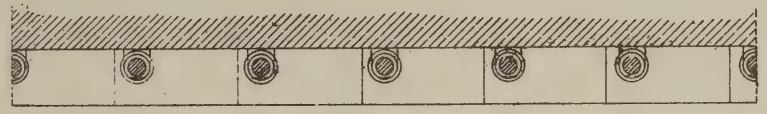
PROFILE OF BASE &c.

MEASURED AND DRAWN BY HORACE E. PRIESTLEY.

TRANSITIONAL ARCADE,
BOLTON ABBEY • YORKSHIRE.

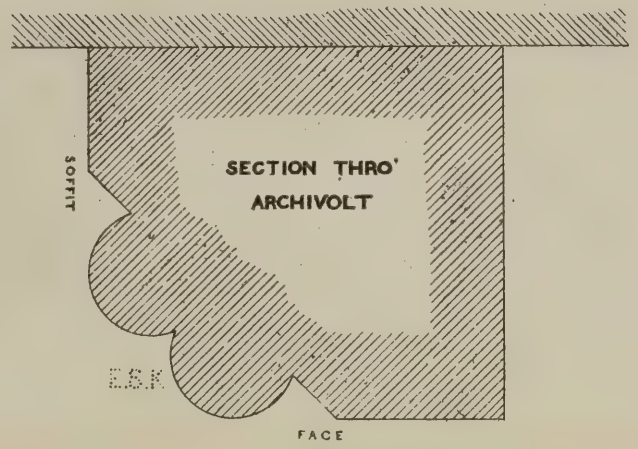


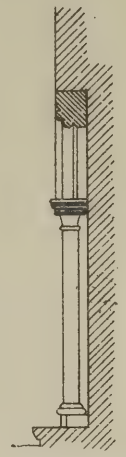
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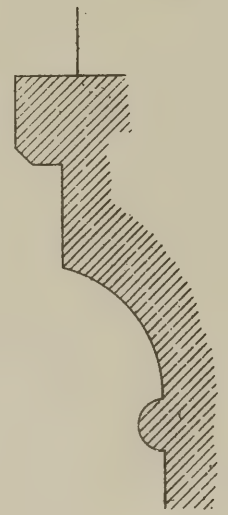


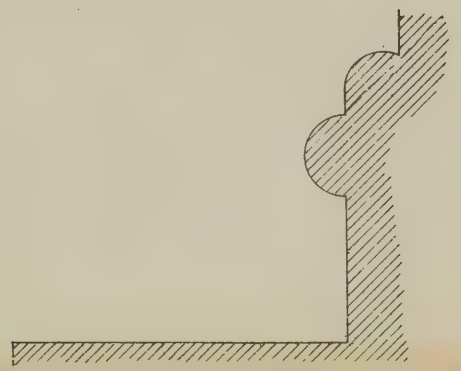


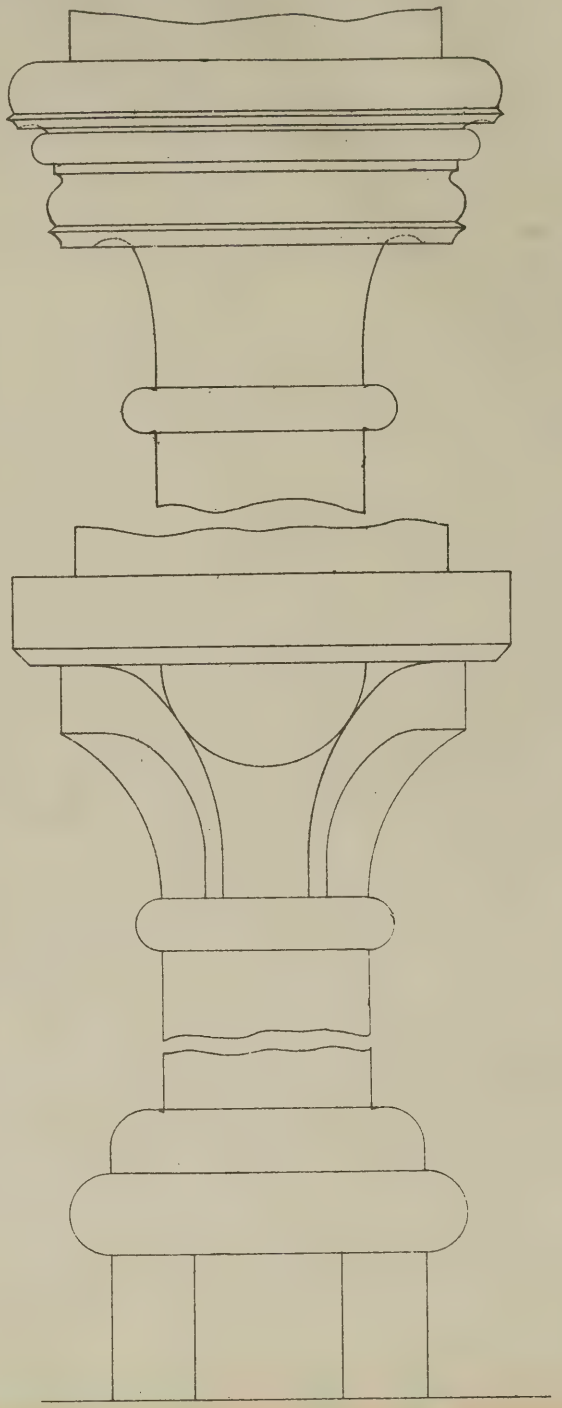


SECTION









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The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. IV., No. 84. **Wed., September 16, 1896.**

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"Masters—by Virtue of their Work."

PROFESSOR HERKOMER has returned, in a vigorous letter, to the subject of Welsh Art. The fervency of his appeal should do something to stir that Celtic blood to which he refers. He reiterates his belief that "Art lies organically in the Celtic race, and only needs calling forth by means of a rational tuition." The difficulty lies in the dearth of masters. Inevitably, if a man has to succeed in the Arts and Sciences he must leave his native nooks and mountains. That is what has happened in Wales. Scotland can and does maintain a certain Art independence; her national life has always been more possible, though not more distinct or defined than the Welsh. But even Scotland parts, has to part, with her sons, as they become the more distinguished, drawn at once to the higher realms of recognition and to the fatter profits of the World. In Wales itself, in Art matters, there are no diplomas and few demands for Art work. The Welsh race is not a rich race, for the Celtic blood has not *that* genius, and though a nation may rightly lament the loss of its sons, whom it cannot reward, it has no right to reproach them. The endeavour, therefore, on Professor Herkomer's part, to call Welsh Art to arms must end, at best, in the nature of a parade, and must not be expected to do perpetual duty. The Eisteddfod has its good points; primarily it is the show-ground of the Celtic talents. These talents admittedly exist in Music and Literature; by mental genealogy they should exist in Art. And, indeed, there is much evidence that they do, though singularly scattered and isolated, without comradeship. "There *must* be many Welshmen," says Mr. Herkomer, "who have learnt and are practising their Art-craftsmanship in England and elsewhere, just as we know of many musicians who have learnt their Art in England and elsewhere. The latter have invariably remained loyal to Wales, and have returned again and again to give their



EXETER, FROM THE CANAL BANKS: SKETCHED BY O. RALLING.

compatriots the benefit of their education. I appeal now to the Welsh Art-Craftsman who may be domiciled outside Wales *to do the same.* I appeal to their patriotism by asking them to compete at the next year's Eisteddfod, not for the sake of the prizes offered but for the sake of Welsh Art, which must be brought to life. The Eisteddfod is at present the only 'machinery' that can give the necessary impulse to Art work in Wales, and so lead the way, first, to the discovery of the masters, and then to the establishment of independent Schools of Art, through the help of County Councils and communities. If all the Painters, Sculptors, Metal Workers, and Carvers, who are Welsh born—living in or out of Wales—were to send works to this yearly Eisteddfod, Wales would soon discover the workers who were masters by virtue of their work. Whereas now a Government certificate is the only guarantee of efficiency in an Art master." *Masters by virtue of their work; whereas now a Government certificate is the only guarantee of efficiency in an Art Master!* That italicized sentence practically sums up the whole problem of Art tuition. Some standard for mastership, be it in Art or any other subject, must be maintained. We abhor the Government certificate system, with its "payment by results," its fictitious "standards," its debasing "schedules." But what can be substituted? *Masters* by virtue of their work? Yes, but who is to assess virtue? There is, in reality, no Art Tribunal in England. The Royal Academy is not; the various Art Societies are shadowy or nebulous. What is one man's meat, the axiom runs, is another man's poison; what is virtue in Art to the Royal Academy would be the senility of vice to younger Schools. Artists are not necessarily the best judges of Art; they are too impassioned or too prejudiced; but they are the best we have. Clear and comprehensive criticism without the bias of personal and executive Art ability, is the rarest of British intellectual qualities. Originally, Mr. Ruskin had it, but in the end he became the most impassioned of prophets, the most singular of partisans; Mr. Hamerton almost had it, but an overfondness of one branch of the painter's Art and a great facility in one method warped the range of his critical gifts. A man with the temperament of Matthew Arnold, and a far wider emotional grasp and vision, might be able to "value a man according to his work," but Governments cannot. We see no hope for Professor Herkomer's new diploma, though a National Eisteddfod may succeed in gathering together representative work. We hope it will, but it cannot be expected to elect those who, being Masters by Virtue of their work, are in the relation of sheep to goats. At the same time we recognise the senses of Colour, Rhythm, of the Tragic Muse, in the Celtic race, and if these could be welded with a growing sense of form and proportion, a more reticent expression, the "Celtic blood" might confidently be expected to yield to us some of the finest Art-work of the World.

A NEW Baptist Church, to seat 550 persons, is to be erected at King's Heath, at a cost of £5,200, towards which £2,100 has been promised.

A NEW Cycle Track has been made at the Crystal Palace wnich is three laps to the mile, and which takes the place of the old cinder one, which has been disused for some time past. It has been designed and constructed by Mr. H. Woodham, the constructor of the track at Catford, and is banked to 8 ft. It is 25 ft. in width at the northern rounded bend, and 27 ft. at the southern or home curve, and widens to 30 ft. in the 130 yards straight. The base of the track is formed of cement-concrete, faced with a composition. The banking is on timber trestles, on which the cement is laid.

STRAY NOTES ON SOME CHURCHES IN BELGIUM AND NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

HAVING spent a very enjoyable—and it is to be hoped profitable—holiday among some of the Cathedrals and Churches of Belgium, the Rhine, Westphalia, Hanover, and Saxony (including Tournai, Bruges, Ghent, Malines, Louvain, Liège, Mons, Aachen, Neuss, Dortmund, Soëst, Paderborn, Münster, Hildesheim, Halberstadt, Naumburg, Erfurt, Limburg, and the Rhine from Coblentz to Cologne), I venture to lay before your readers such excerpts from the somewhat voluminous notes made upon their structures, as may prove interesting and useful, either to those contemplating a similar Architectural tour, or to others less fortunately circumstanced, but who may like to be informed as to the points in which the buildings of these countries differ from our own. The proximity of the Netherlands to our shores, and the greatly increased facilities afforded by the steamboat companies for visiting this part of the Continent, have, perhaps, rendered Englishmen more familiar with such cities as Antwerp, Bruges, Ghent and Malines than with any others. Yet the few "considerations" that I propose making upon the structures of their Cathedrals and Churches may, I hope, tend in some degree towards awakening a renewed interest on behalf of these stately piles, in the minds of those whose reminiscences of their many beauties are grateful ones. After a somewhat boisterous passage from Dover to Ostend, there was something peculiarly charming in the first sight of Bruges just as a magnificent sunset was bathing the variously outlined red-brick steeples of the Cathedral, Nôtre Dame and St. Jacques, as well as the octagonal Beffroi, in a crimson glow. Something very pleasant there was, too, in finding one's self strolling once more around the procession path of a Continental choir, with all the sights and sounds, and I may add smells (pleasant ones), peculiar to their locale, fully in evidence around you. Parts of the Cathedral of St. Sauveur at Bruges are fine, especially the First Pointed arcades of the Choir, the tall arches of the Crux, and the slender reed-like shafts of the middle Pointed Nave arcade—these last clustering "like stems in cornsheaves" in a manner

PARTICULARLY CAPTIVATING.

The upper stories of the building, although designed on a noble scale, show a great decadence. Indeed, here, as in almost every Belgian Church, we miss that poetry of design, that elegance of proportion, and that beauty of well ordered and carefully considered detail which rarely fails to charm us when contemplating the "dim and mighty Minsters of old time" scattered over the faces of England and France. These defects in the detail of Bruges Cathedral are, in some measure, concealed by the polychromatic decoration which has been so lavishly applied to its interior, so that with its rich fittings of Renaissance date—among which must be reckoned the marble jubé sustaining, Exeter-wise, a noble organ,* may lay claim to a high place among picturesque European interiors. The shortness of the Nave compared with its height is not the least remarkable feature of St. Sauveur, at Bruges. To St. Bavon, at Ghent, the same remark applies. At Bruges, internally, this shortness of Nave is rendered disagreeably apparent by the presence of an immense wall space—relieved, it is true, by polychromatic decoration—but communicating with the western Tower by a low archway only, whereas at Ghent the defect of this truncation is completely neutralised by the noble arch, which, reaching to the whole height of the Nave, admits to the space beneath the Tower. And this leads us into a few thoughts upon

BELGIAN CHURCH STEEPLES.

It must be borne in mind that until the middle of the sixteenth century there were only four Bishop's Churches in the Low Countries—*i.e.*, Arras and Cambrai (suffragan sees to Rheims); and Tournai and Utrecht (suffragan to Cologne). In 1560 a large number of additional bishoprics were created, those with which our present paper is more immediately concerned being Bruges, Ghent, Malines, Namur, and Ypres. The last, however, was suppressed in 1809, together with another in French Flanders—that of St. Omer. According to Teutonic rule, which has governed much of Belgian Architecture, Churches which were either Cathedral or Collegiate were alone entitled to a pair of Towers. The presence, therefore, at Bruges, Ghent, and Malines, of the solitary western Steeple and the absence of such entourages as Cloisters and Chapter House sufficiently indicates their origin as great town Churches pure and simple. This western position for the Steeple seems to have been a very favourite one throughout Belgium, and where its arch opens into the Church, as for instance several of the Liège Churches at a great height, such a locale for the Tower rarely fails to invest the interior with a considerable degree of grandeur. Besides the examples thus quoted, we have the unfinished Towers at Mons, Huy, and Louvain, but of these I shall speak more in detail hereafter. Sometimes, as in the case at Tirlemont, the Towers of St. Germain and Notre Dame du Lac, they have short Transepts branching from their north and south sides, and these additions assist in imparting an air of great breadth and majesty to the façade.* Of Tower groups Belgium cannot present any very notable example beyond that of Tournai, a Cathedral which, although lying in the main line from Calais to Brussels, is but little visited by the tourists who daily hurry by it intent on getting to Cologne and the Rhine; yet it is undoubtedly the grandest Church in the Low Countries, comprising a Romanesque Nave of great length, and in style, quite *sui generis*; of Transepts with the aforementioned cluster of five Steeples, all in a very German Transitional style; and a Choir which, as thoroughly French, we are unable to help admiring in spite of the faultiness of construction, for the daring *elancée* which is its leading characteristic. Such a fusion of styles as is exhibited in the Cathedral at Tournai, seems only natural in a country like Belgium which has been yclept

"THE COCK PIT OF EUROPE."

Although it is not easy to draw a very hard and fast line across its map, generally speaking, we may look for a French style as exemplified in the lofty clerestories and coronæ of apsidal Chapels of the Churches in the flat district of the centre and north west; and for a German one in the tall aisleless apsidal Choirs of the Churches in the hilly portion of the country about Liège. I do not, of course, mean to imply that there is no special Belgian style; that there is a complete Gothic style, and a very disagreeable inferior one, the true artist will not be long finding out, but at no period can that country be said to have established a great School of its own, like the Early Pointed of Yorkshire or the Iles de France, or the Perpendicular of our West and East Anglia. Perhaps the style in which Belgium shows best is the Early Flamboyant; see this from the large scale in which it is carried out in such Churches as St. Martin and St. Jacques, at Liège; St. Pierre, at Louvain; St. Gommer, at Lierre; and St. Wandru, at Mons. It rarely fails in captivating the beholder, despite a certain raggedness and incomplete look about many details.

(To be concluded).

AT a Special Meeting of the Manchester City Council, held last week, a Drainage Scheme for conveying the effluent sewage to the Estuary of the Mersey was adopted. The scheme involves the construction of an enormous Conduit over 15 miles in length, and with a discharging capacity of seventy million gallons a day. The cost is estimated at £258,000.

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* Admirers of fine organ cases will be gratified at Bruges, for besides that in the Cathedral, another will be found in the spacious, but architecturally uninteresting, Church of St. Jacques, where it occupies a similar position. At Ghent, the organ, in a most charming case, is bracketed above the arch leading to the North Choir Aisle from the Transept.

* Although my acquaintance with these two Churches has only been made from the railway line, I should imagine that the western Transepts formed internally a species of gigantic Narthex, such as we meet with in such of the Rheinish School of buildings as St. Cunibert's and the Apostles' Church at Cologne.

THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

STROLLING SKETCHES.

No. II.

EXETER AND ITS CATHEDRAL.

ILLUSTRATED BY OCTAVIUS RALLING, S. NEWCOMBE, AND G. J. F. HOOKWAY.

EXETER is a city planted upon a hill, but surrounded by hills higher than its own. This was no disadvantage in ancient days, as the hill to the south and west ended abruptly where the river Exe formed a natural moat, and the site generally offered many facilities for making it a strong fortified city. The foundation of the city is lost in the mist of ages, but it is certain that the Romans recognised the advantage of the position, and it was no mean city in their days; and although no actual Roman work can now be discovered in the remains of the ancient wall, which can be traced round the older portions of the city, the reason, probably, is that it has been breached and repaired so often that little beyond the actual foundation remains of the original walls. Antiquities in the shape of mosaic pavements, cinerary urns, glass work, and numberless coins are, however, witnesses of Roman occupation; and the two main roads of the city from east to west and north to south, although the former has been known to be slightly diverted, are to all intents as laid down by the Roman conquerors, and the portion of the road, now St. Sidwell Street, is identical with Icknield Street.

It would be impossible to give even an outline of the history of Exeter, but from the time when any record has been kept it is practically identified with the history of the nation, and as the recognised and undisputed capital of the west, and the fourth city of the kingdom, it has been the coveted goal of invaders in ancient times and of contending parties in the Middle Ages.

The present walls in their main construction are the reputed work of King Athelstan, who also had a Palace within the city, and the Castle, or what remains of it, was the work of the conqueror, and intended to dominate the city, as a warning to the citizens for the obstinate defence they offered—it being the last city to succumb—to the rule of the Norman. Of the subsequent sieges in the unsettled times which followed, little need be said; suffice it to say that, as a rule, Exeter was loyal to the reigning powers, and that it was held in high repute by successive sovereigns, the numerous charters which are in existence amply testify. Exeter, having an almost unrivalled series of records of priceless value in her possession, as well as the original sword and cap of maintenance, presented by Henry VII., which is still carried before the Mayor on official occasions and ceremonials. To quote from the historian Freeman: "Isca Damnoniorum, Caer Wisc, Exanceaster, Exeter, keeping the same name under all changes, stands distinguished as the one great English city which has, in a more marked way than any other, kept its unbroken being and its unbroken position throughout all ages. The city on the Exe, in all ages and in all tongues, keeping its name as the city on the Exe, allows of an easy definition. It is the one great city of the Roman and the Briton which did not pass into English hands till the strife of races had ceased to be a strife of creeds; the English conquest had come to mean English conquest, and no longer meant havoc and extermination. It is the one city of the present England in which we can see in recorded times the Briton and the Englishman living side by side. It is the one city in which we can feel sure that human habitation and city life have never ceased from the days of the early Cæsars to our own. It is the one city of Britain which beheld the paganism of Rome, but which never, save for one moment of foreign occupation, beheld the heathendom of the Teuton. Here alone we can say with confidence that Jupiter and Mars were once worshipped by the citizens of Isca, but that Wodin and Thunder were never worshipped by any citizen of Exeter. To this day it is the undisputed head of its own district, and both in feeling and in truth Exeter is something more than an ordinary county town."

Architecturally, the great feature is the Cathedral, although, curiously enough, its position on the south side of the High Street is comparatively secluded, and strangers visiting the city frequently require direction, but from the low-lying lands by the river or from the hills surrounding the city, the two Norman Transeptal Towers and the long unbroken roof of the Nave and Choir are conspicuous objects enough, and its enormous mass completely dominates every other Architectural feature of the city.

The seeming obscurity of its position, prominent though it actually is, may be accounted for by the fact that the Church was grafted on to the city and not the city growing up around and under the shelter of the Church. Originally the Bishopstool of the See was at Crediton, but for additional protection in perilous times, and to obtain the greater importance which the important city of Exeter could confer, the Bishopstool was transferred to Exeter in 1050, with Leofric as its first Bishop.

There was, probably, at the time a Saxon Church in Exeter which would form a nucleus, as it were, of a Cathedral, but Leofric and his successors lost no time in erecting a Cathedral, and although all that now remains of this buildihg are the two Transeptal Towers of Norman character, it was, or presuming that it was never completed, was intended to be of a truly monumental character, and probably the finest Norman Cathedral in the World.



FROM BISHOP'S PALACE GARDENS; SKETCHED BY S. NEWCOMBE.

"Of the present building," to quote again from the historian Freeman, "Peteo Quivil may be fairly called the author. Some smaller changes may have been made earlier, but it was in his time that the step was taken which gave the Church of Exeter its marked and unique character. The Fabric Rolls of 1284 and 1285 record the insertion of large windows in both Towers, the Northern Tower of St. Paul and the Southern Tower of St. John. Whatever the Towers had been before, they now became Transepts. This ruled the whole plan of the building. If the Towers were kept the Church could not follow the ordinary type of an English Minster. Western Towers might still have been added, which would have given the building an outline like some of the German Churches, but the Mid-Tower, the pride of the Minster of England and Normandy, was forbidden. The Church as rebuilt had to take the shape of a long unbroken body, running between the two Towers retained from the elder building. The effect within and without is unlike any other great Church in the World.

None of the foreign examples of Towers forming Transepts, or standing over Transepts, or standing at the ends of Transepts, have the same air. Even the gigantic Choir of Le Mans

is much shorter than that of Exeter. At Geneva the Towers are little more than Side Towers to an apse. But English Churches, as compared with those of the Continent, are commonly long and low, and this of Exeter is yet longer and lower than usual. It had to be low so as not to dwarf the Towers between which it had to run. Moreover, the English fashion of a long eastern limb was now well established. The Church of Exeter, even though its crossing took another shape from its fellows, must still have a large part of its length east of that crossing. The Choir is little shorter than the Nave, and Choir and Lady Chapel together are longer. The length of the main body within and without are unbroken. There is the unbroken ridge line without and the unbroken vaulting line within, approaching to the effect of Bourges. But the extreme eastern part, the Lady Chapel, is not as at York, Lincoln, and Ely, of the full height of the Nave and Choir. In those Churches the Lady Chapel was part of a great extension to the east; at Exeter it was an extension to a building which it must have been already intended to destroy. It was, therefore, naturally lower than the building which afterwards rose to the west of it. As it is, the Church of Exeter is a remarkable case of one general design being carried out through more than a hundred years. It was fixed, once for all, what the new St. Peter's should be like, and it grew up after one general pattern, but with a certain advance in detail as the work went westward. Bishop Grandisson, when the Church was about half built, said that, when it was finished, it would surpass in beauty all Churches of its own kind (*in genere suo*) in England and France. Whatever he meant by *genus suum*, the prediction was safely risked. As far as outline and general effect goes, the Church of Exeter forms a class by itself, and can be compared with nothing save its own miniature at Ottery St. Mary. As far as detail goes, no building of his age shows us the taste of that age in greater perfection.

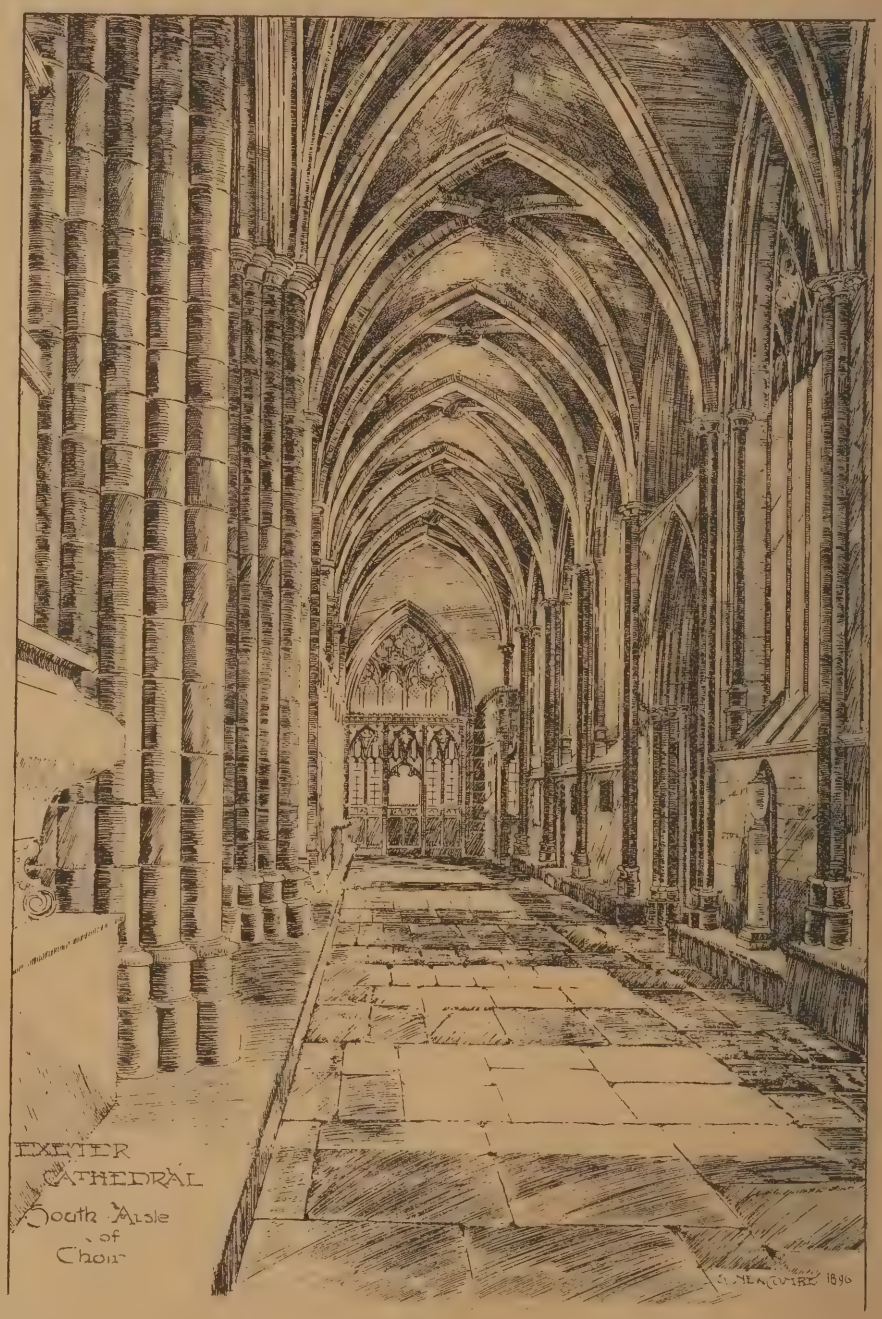
"The style of the Church is necessarily that of the latter part of the thirteenth and the earlier part of the fourteenth. The windows throughout supply excellent studies of the growth of tracery from its earliest fully developed forms. But they are all kept within the range supplied by its geometrical and flowing varieties, which are mingled even in the great west window without any sign of Perpendicular. The proportions of the building were ruled by the necessity of keeping it low. The designers clearly liked large windows; they would get a taste for them in the single bodied Lady Chapel. But two rows of large windows in the Aisles and Clerestory could only be had by keeping the Triforium low. The result was a somewhat massive Arcade, with a large Clerestory well filled in with windows, while the Triforium is cut down to a small Arcade. The Vault is in the best style of the time, the vaulting shafts rising from rich corbels. The long unbroken line of roof from west doorway to High Altar, unique in England as it is, is clearly the right thing where there is not the real break of a real lantern."

Exeter Cathedral was not exempt from the neglect of the ages succeeding the Reformation, and not till 1871 was the work of actual restoration begun, between which date and 1877 a sum of £50,000 was expended under the direction of the late Sir Gilbert Scott, and the work is generally considered eminently satisfactory as a restoration.

As the Cathedral is the centre of the ecclesiastical, so is the ancient Guildhall the centre of civic life, and is now the chief Architectural attraction. The Castle of Rougemont, which in ancient days dominated the city, now being only a memory, only the remains of the ancient Gateway standing, and this, though in ruins, conveys some slight idea, by its massive strength, of the kind of Castle it was which held its own for so long against all the forces which King Stephen brought against it in his famous siege, besides the many other sieges which it successfully withstood. The Gates of the city, which rivalled those of York, are all gone, sacrificed to the utilitarian instincts of the first part of the present century.

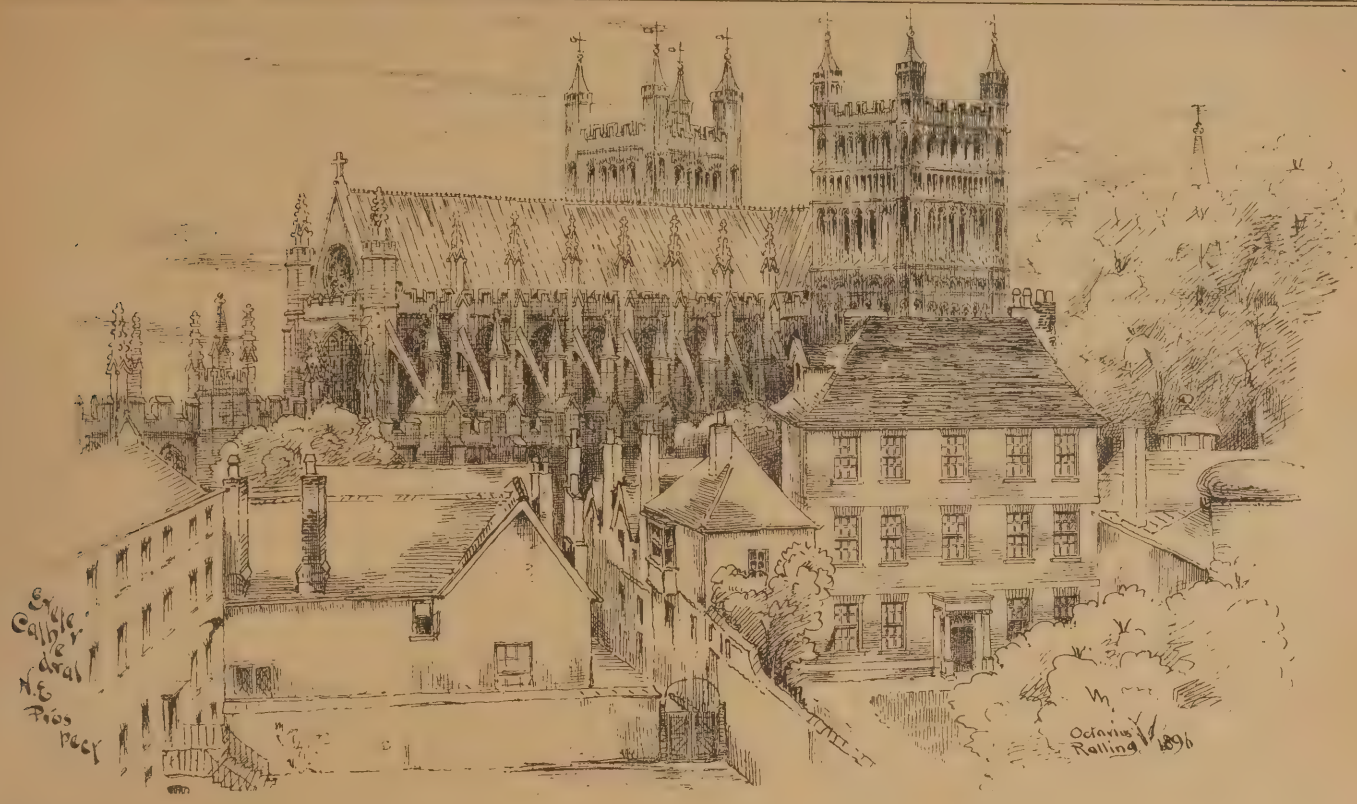
Although so many of its glories, both Architectural and political, have departed, the history of the city is one of the deepest interest, alike in points in which its history is typical of the older English cities and in points peculiar to itself. The city which has sat on its hill as a dwelling place of men, with an unbroken life of more than eighteen hundred years—a city by the side of which most of the capitals of Europe are things of yesterday—can hardly sink, like some of its fellows, to the forsaken ruin of a common market town. Still, Exeter is emphatically a city of the past. But the city in which Briton and Englishman have an equal share, the city which has stood so many sieges at the hands of so many enemies, a city which received one William at its eastern gate and the other at its western, a city which still keeps at least the successors of the never gave way to Woden—British Caerwisc, Roman Isca, West-Saxon Exeter, may well stand first on our roll-call of English cities. Others can boast of a fuller share of modern greatness, none other can trace up a life so unbroken to so remote a past.

(*To be concluded.*)



At Gibraltar the excavations for one of the Dry Docks is so advanced that the new slanting roadway by its side leading to the future main entrance to the Dockyard, will be used at the disembarkation of the troops from England next month. Instead of having to ascend a narrow staircase the troops will be able to march en masse to the road above, and the baggage wagons will come alongside the transport, thus saving an immense deal of labour.

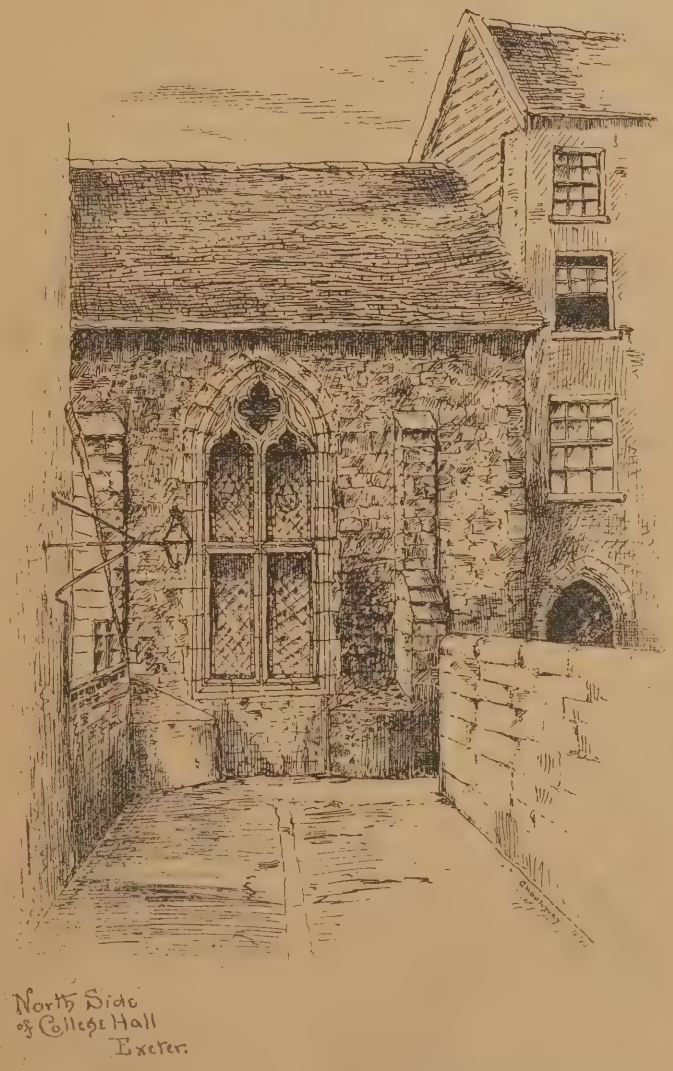
The School of Art Wood-Carving, Central Technical College, Exhibition Road, South Kensington, has been re-opened after the usual summer vacation, and we are requested to state that one or two of the Free Studentships, maintained by means of funds granted to the School by the Institute, are vacant. To extend the benefits of the School, a remission of half fees for the Evening Class is made to artisan students connected with the wood-carving trade.



NATIONAL FREE LABOUR ASSOCIATION.

IN the Annual Report of the general secretary of the National Free Labour Association, which will be read at the fourth annual Congress at Manchester next month, it is stated that the usefulness of the Association, as an organization in neutralizing the disastrous effects of labour disputes, had been manifested by results. The Association had thoroughly justified its existence by the efforts it had put forward in this direction in almost every centre of trade. At the end of 1895 the total membership enrolled stood at 131,650. On the 31st of July, 1896, the membership, having steadily increased, had reached the most respectable figures of 150,355 *bona fide* workmen. This rate of increase was still going on, notably in the northern ports on the Mersey and Clyde, and in the chain of Bristol Channel ports. In connection with the strike in the London building trade in 1895—96, it was claimed that the cardinal feature which the London Building Trades Federation struck for—a drastic alteration of the working rules in order to exclude free labour from being employed in the building jobs throughout the Metropolis—was signally defeated. During the past three months arrangements had been made for opening new labour bureaux at Glasgow, Greenock, Leith, Dundee, Aberdeen, Bristol, Newport, Cardiff and Swansea. In regard to the threatened great strike in the London docks and outports in the country, it was stated that on the publication of the manifesto issued by Messrs. J. Havelock Wilson, Ben Tillett, Tom Mann, and other new union leaders, declaring for a general strike in the shipping and maritime industries of the country, the National Free Labour Association decided that if the trade of the Port of London and the outports was again to be paralyzed by the devices of the strike advocates, they would use every weapon at their command to checkmate and destroy the baneful work of the strikers. It was gratifying to find that the strike leaders had wavered from their original course, and the threatened strike seemed to have blown over.

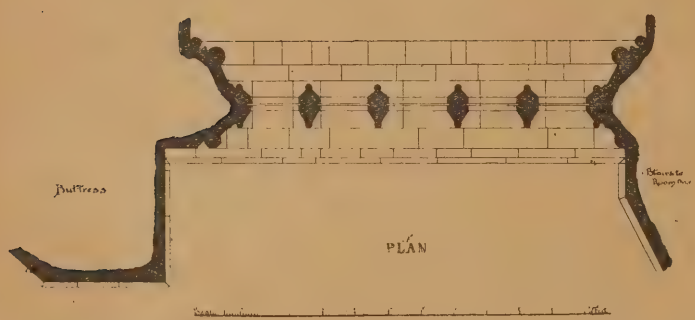
THE strike in the Leeds building trade has now reached its 20th week, during which time the strike hands have received from 10s. to 15s. per week, with every prospect of these sums being continued. Amongst the works at a standstill are several Corporation contracts, two Board Schools, and a Bank.



NORTH SIDE OF COLLEGE HALL, EXETER: SKETCHED BY G. J. F. HOOKWAY.



EXTERIOR ELEVATION. SECTION



WINDOW IN ST. ANDREW'S CHAPEL, EXETER CATHEDRAL: MEASURED AND DRAWN BY G. J. F. HOOKWAY.

NATIONAL ASSOCIATION OF SLATE MERCHANTS AND SLATERS.

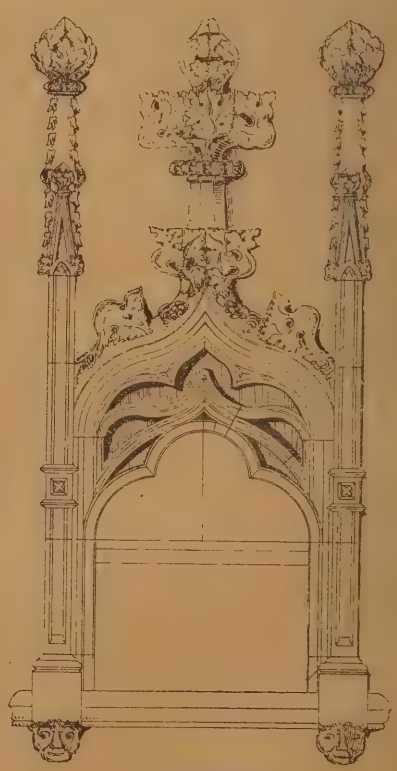
CONFERENCE IN NORTH WALES.

THE Fourth Annual Conference of the National Association of Slate Merchants and Slaters was held during the past week at Llandudno. At the Annual Meeting held at the Masonic Hall, Mr A. B. Partridge (Leicester), President, occupied the chair, supported by the Vice-Presidents, Messrs. J. Braby (London), W. Follitt (London), T. Flewitt (Nottingham), R. Mascall (Middlesbro'), D. Nelson (Sunderland), H. Shenton (Derby), Mr. J. Hunter, Hon. Treas. (Hull), and Mr. James Townsley, Hon. Sec. (Hull). The President, in his address, said the meeting was quite unique, for, so far as he knew, there had been no similar occasion when the merchants and slaters had been invited to meet the quarry owners. Their Association had given birth to and cultivated just dealing with customers, just dealings with each other, justice in buying, justice in selling, a good standard of workmanship, fair wages to the workmen, a consolidation of their trade by the removal of misunderstandings and petty jealousies, reasonable prices and a fair remuneration for their labour and the risk of capital, the discontinuance of unfair competition, and the bringing about of uniformity of work and prices. They were not banded together to form a ring to force up prices against the public, which, as Alderman Leonard warned them at Leicester, would be sure to end in an enormous disturbance of business. Their interests were one and the same, and if they continued to work together the trade would remain in its present satisfactory condition. Referring to the threatened strike at Penrhyn, he said a cessation of work at this or any other large quarry at the present time would be deplorable in the extreme. It was a satisfaction to feel that the difficulty had been met for the present, and he trusted might be soon overcome, by the wise and sagacious way Lord Penrhyn and Mr. Young met the men's demands and as he thought exposed the weakness of the men's cause and the falsity of their claims. The Hon. Secretary's report spoke of a steady growth made during the past year. They began with a register of 168 firms, and this had been increased to a total of 204, a net increase of 36, or 12 more than the preceding year. From this had to be deducted eight firms whose membership had lapsed from various causes. The election of officers resulted in Mr. A. B. Partridge being reappointed President. Messrs. C. Braby, W. Follitt, T. Flewitt, J. Hollis, R. Mascall, and Digby Nelson were elected Vice-Presidents. Mr. James Townsley and Mr. J. Hunter were re-elected Hon. Secretary and Hon. Treasurer respectively. The Central Board was also appointed. On the 8th inst. Blaëran was visited, and the Oakley, Greave's, Votty and Bowydd, Maenofferen, New Welsh Slate Company, and Craig Dhu Quarries inspected. The visitors were entertained to luncheon at each of the quarries. In the evening the members were entertained to a banquet at the Town Hall, Portmadoc, by the Festiniog Slate Quarry Proprietors' Association. On the 9th inst. the business of the Conference was concluded at the Masonic Hall, Portmadoc, and visits were then paid to the different places of interest. On Thursday a visit was paid to the Divorure Quarries, the property of Mr. Assheton-Smith, and on Friday the party inspected the Penrhyn Quarries, and at Beaumaris were the guests of Lord Penrhyn.

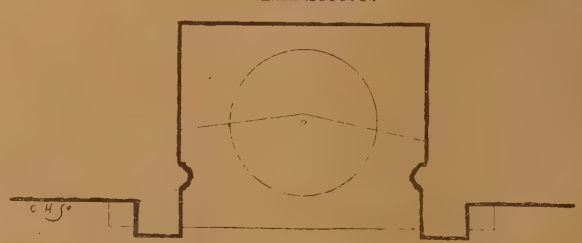
THE Model Lodging-house erected by the Town Council of Peterhead at a cost of £1,500 has been formally opened. The building is certified to contain 62 lodgers, and separate dormitories are provided for males and females, and a certain number for married couples.

IT is stated that a telegraphic cable has been destroyed by insects. The cable was laid in Tonkin in 1894, and was composed of seven copper wires protected by an insulating envelope coated with cotton and jute. In addition to this, it was placed in a leaden pipe. Notwithstanding all these precautions, the cable, which was laid on a marshy soil, commenced showing signs of decay in 1895, and it was found necessary to replace it in the spring of the present year. On examining the cavities in the protecting envelope M. Bouvier discovered they had been made by termites. It is suggested as a preventive measure to steep the cotton and jute in a solution of sulphate of copper.

-PISCINA ST GABRIEL'S CHAPEL-
-EXETER CATHEDRAL-



-ELEVATION-



DRAWN BY G. J. F. HOOKWAY.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
September 16th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs." —JOHN RUSKIN.

IF the change in the title of the South Kensington School from the "National Art Training School" to the "Royal College of Art" is not merely an empty compliment to a much-criticised institution, it is a distinct promise, says the "Globe," of a very definite alteration in the educational policy of the Science and Art Department, a promise that everyone will be glad to see fulfilled in a really adequate manner. As a Royal College, South Kensington should rank with the other similarly designated bodies to which is entrusted the duty of setting the standard in the professions they represent: and to do this it will need many amendments and much modification in its manners and customs. There is no reason why, with judicious revision, it should not thoroughly act up to its new title; but this revision is certainly necessary, for, as it is at present constituted, any pretension on its part to pose as the leading influence in Art education would be worse than ridiculous. A change of designation will certainly not hide its present deficiencies, but would rather accentuate them, and make the contrast between its professions and its practices the more glaring. At the same time, the National Art Training School, by adopting such a title as the "Royal College of Art," is decidedly turning its back upon the countless professions which it has for years been making about its special mission. Art, its apologists have declared over and over again, was not what it existed to promote; it was a teaching place where intending masters of Art Schools would learn how to produce the particular type of student whose work would be likely to earn for the School in which he might be studying a comfortable proportion of the money grants which a not too liberal Treasury has been accustomed to put at the disposal of the Science and Art Department. That anyone should use the School as a means of acquiring the capacity to work as an artist was always horrifying to every believer in the Training College as it has hitherto been constituted. Now, apparently, all this is to be changed, and as a Royal College, the School will have to make Art its chief subject of study, and will have to encourage artistic aims that it has for many years most consistently avoided.

A CRAFTSMEN'S and Industrial Exhibition has been opened at the Royal Aquarium. Apart from the interesting patents and works of skill displayed, the Exhibition is noticeable for the number of contributions that fairly come within a category of the "misplaced ingenuity and industry" section. The working man is immensely fond of occupying his spare time in making useless articles, and while in some instances the results of the labour of leisure may be fairly described as "things of beauty," in many cases it is difficult to imagine what satisfaction is derived from the toil and trouble incidental to the production of articles neither pleasing to the eye nor possessed of the slightest utility. One of the most interesting features of the Exhibition, which will remain open until the beginning of next month, is the working potter from Lambeth, who sits at the ancient wheel and turns the clay into all manner of beautiful forms. The glass-blower, however, runs him very close, and an extremely expert workman is employed to evolve bright and fantastic articles. Cooking by electricity is another interesting demonstration, and the comparatively slow process of brush-making by hand is likewise well worth seeing.



FINIAL TO PISCINA, ST. MARY MAGDALENE CHAPEL, EXETER CATHEDRAL: SKETCHED BY O. RALLING.

WE understand the authorities at the War Office have an elaborate scheme in hand with respect to the building of the new Barracks and Military Hospital at Chelsea. It is proposed to remove the Duke of York's School for the Sons of Soldiers into the country, and to disestablish the Chelsea Hospital for Pensioners, provision being made, of course, for the inmates on much the same lines as those adopted in the case of the old Greenwich Hospital. The old institutions removed, the land will then be utilized for the purpose above named, Chelsea being regarded as a peculiarly advantageous position for the proposed extension of barrack and hospital accommodation in the Metropolis. It is very much to be hoped that this scheme will meet with the strongest possible opposition from many quarters. To destroy Chelsea Hospital would be an act of monstrous vandalism, and the Duke of York's School is an excellent institution, doing admirable work. If the War Office wants another Barrack in the neighbourhood, there is plenty of ground available, for whole acres of small houses are just now being demolished in Chelsea and Pimlico. But why should we have more Barracks in London? Surely it is better for the health, the good conduct, and the efficient training of soldiers that they should be in the country.

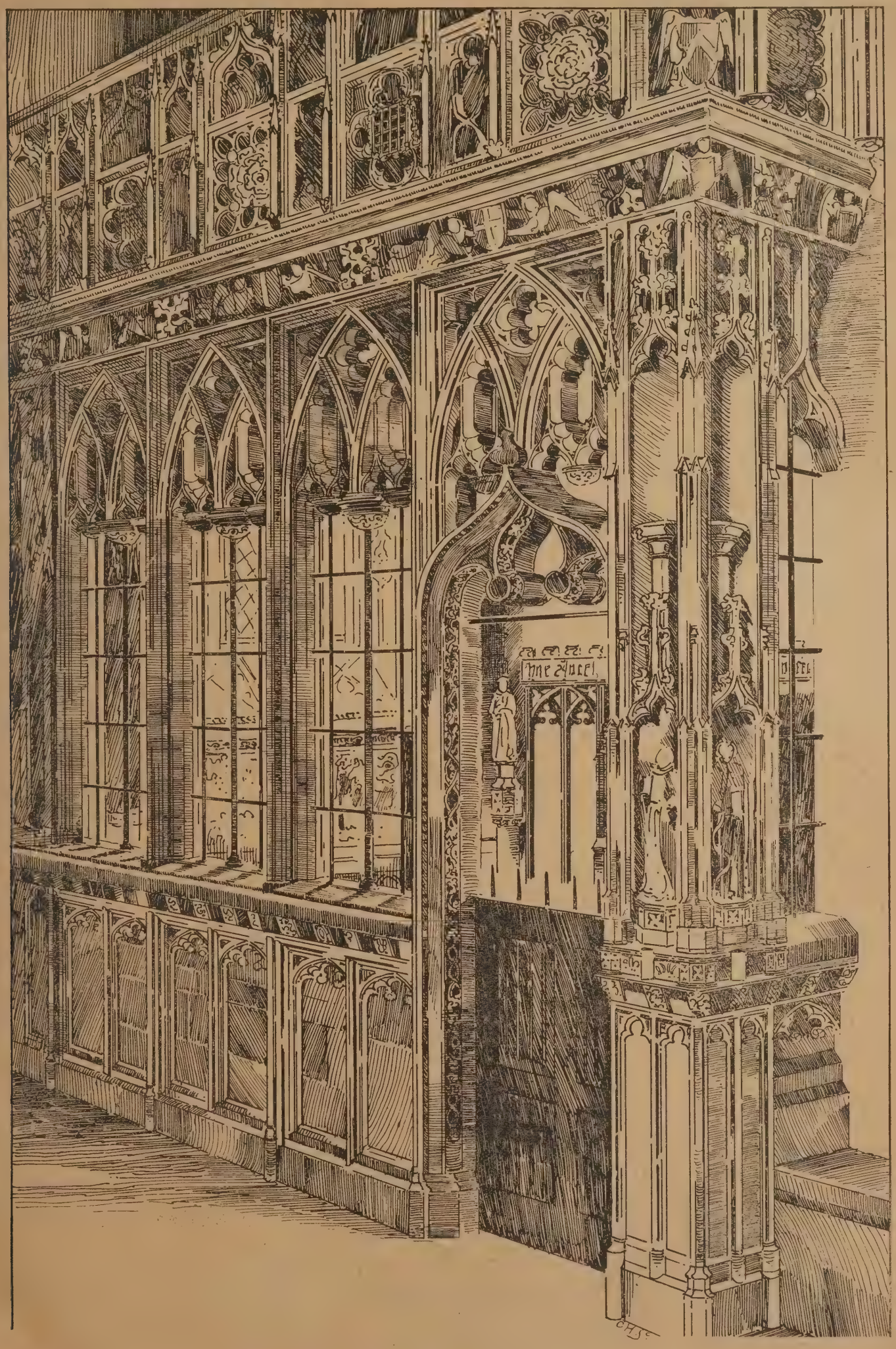
So accustomed are the people of Japan to floods that after the first shock they quickly recover their light-heartedness and resume their occupations with cheerfulness. New houses spring up on the sites of those destroyed, the embankments are patched, and the farmers hope that next year their locality will escape devastation. This resignation to the inevitable is particularly noticeable at Gifu, which, ever since 1891, when earthquake and fire destroyed the town so that only a few houses remained, has each year suffered catastrophe. With regard to the recent calamity it is stated that at Kioke the people had been working two days to strengthen the embankments, and, thinking their labours had made them secure, retired to rest. But the embankment collapsed in four places, sweeping away the houses. At Kurozu the inhabitants were driven to take refuge on the roofs of the houses, which were not submerged, and there without food were exposed for three days to the heat of the sun, which after the rain was intense. Without means of escape they clung to the roofs, afraid to sleep lest they should fall into the water. They were finally assisted from Nagaoka, three miles off, the police coming to their rescue in boats.

IT is understood that two of the most eminent painters of the Royal Academy, Mr. G. F. Watts and Mr. W. Q. Orchardson, have refused to accept the presidency — Mr. Watts on account of his advanced years, and Mr. Orchardson because he cannot spare the time for the official and social duties which attach to the post. Mr. E. J. Poynter is now regarded as the most likely successor to the late Sir John Millais. He is the Director of the National Gallery, but that cannot be considered an insuperable barrier to his appointment, as Sir Charles Eastlake held the same office during his term as P.R.A.

THOSE who exerted themselves unavailingly to save the Rolls Chapel from destruction in December last, will learn with a melancholy interest that the last remaining fragments of the walls have lately disappeared. Torrigiano's tomb of Dr. John Young, Henry VIII.'s Master of the Rolls, and the other monuments deemed worthy of preservation have been carefully removed and housed in a shed. It is hoped that when the new wing of the Record Office is completed, in about eighteen months' time, they may be restored as nearly as possible to their old positions.



THE LADY CHAPEL: DRAWN BY S. NEWCOMBE.



ST. SAVIOUR'S CHAPEL, EXETER CATHEDRAL: DRAWN BY S. NEWCOMBE.

THERE is a not unnatural disposition to invest very ancient stones with a romantic history, due to the situation in which they chance to be found. Both the stone and the legend may be individually authentic; but sometimes neither really belongs to the other, and we have what —for want of a better phrase—may, perhaps, be called an antiquarian misfit. Not long since a stone with a Runic inscription was dredged up in the Harbour at Havre. This was at first stated to be a relic of the old Viking settlers in Normandy. But, though perfectly genuine in itself, it presently transpired that the stone had formed part of a Norwegian exhibit at the Paris Exhibition of 1867, having been accidentally lost overboard on its return to Norway shortly afterwards. Another Runic stone, now in the Guildhall Library, was dug up in St. Paul's Churchyard in 1852, and, on the doubtful interpretation of an inscription, is associated with Tokig, a minister in England of Canute. But if, as is asserted, this formed part of a London monument of the eleventh century, other stones of similar character might surely have been expected to occur in the same locality. A yet more venerable example of the occasional fallacy of this form of lapidary legend is furnished by the so-called "Stone of Job," situated not very far from Damascus. Immemorial tradition has asserted that the patriarch rested upon it in the course of his wanderings. Later investigation, however, has conclusively shown that, instead of the inscription having anything to do with Job, it refers to Rameses II., a King of Egypt who reigned 200 years later.

AN eating-house made of paper has been erected in the port of Hamburg. Its walls are composed of a double layer of paper stretched on frames and impregnated with a fire and water proof solution. A thin wooden partition affords further protection against the inclemency of the weather. The roofs and walls are fastened together by means of bolts and hinges, so that the entire structure may be rapidly taken to pieces and put up again. The Dining Room itself measures 30 by 6 metres, and is capable of accommodating 150 persons. There are 22 windows and four skylights, and the heating is effected by a couple of isolated stoves. A side erection contains the manager's Offices, Kitchen, Larder, and Dwelling Rooms. The total cost of the construction is said to have amounted to 1,500 marks.

CANON M'LARNEY, Rector of Clonfert, is appealing for funds for the restoration of Clonfert Cathedral. He writes:—"The Cathedral was founded by St. Brendan in the year 558, 39 years before St. Augustine landed in England. It has had a very chequered and interesting history. It suffered greatly from the incursions of the Danes, who frequently sailed up the River Shannon from Limerick and attacked Clonfert. It was burnt six times between the years 774 and 1179, and was plundered three times between the years 949 and 1065. In the year 1541 it was almost totally destroyed. Bishop Woolley repaired the Cathedral in the year 1664. Since that time up to the present, a period of over 230 years, some alterations and improvements have been effected, but no general work of restoration has been done, consequently the building is in great need of repair. It is one of the smallest Cathedrals in the Kingdom, and is considered very beautiful. It is now used as a Parish Church. It is celebrated for its magnificent 12th century doorway, one of the finest remaining specimens of Hiberno-Romanesque work in existence. It is also remarkable for its Chancel window, nearly a thousand years old, which is similar in design to that of Temple Righ, at Clonmacnoise." The amount required is £1,500.

THE excavation of the tumulus on Parliament Hill, which was undertaken by the London County Council, aided by private enterprise, has not been very promising of results. The excavators thought probably to recover the silver girdle or belt supposed to have been worn by Boadicea when she marched against the Roman Legions. As a matter of fact, however, an old Roman coin and a bullet was all that was discovered as a reward for the pains and labour of excavating. It is probable that the mound, which no doubt is artificial, had been opened in comparatively modern times, and if anything had been buried there it has long since been removed. Besides, it is doubtful whether the great battle ever took place at Hampstead. It is more probable that the famous fight was carried on in Essex, possibly in the neighbourhood of Chelmsford.

M. DE SELVES, the new Prefect of the Seine, who exercises a sort of bureaucratic control over the municipality of Paris, has just inaugurated a reform that will be watched with interest beyond the borders of France. It will be generally admitted that the persons elected to represent local interests on town councils and analogous bodies, however competent to deal with financial, mechanical and sanitary matters, seldom possess the æsthetic sense or imaginative faculty which ought to be brought to bear on the Architectural features of a great city. We need not look abroad to find abundant confirmation of the fact. To keep the Municipal Council of Paris from indulging in vagaries of which future generations may repent, M. de Selves has created a non-elective committee of works, with advisory powers only, its duty being to report to the Council on all plans involving the harmony and beauty of the capital as a whole. He proposes to appoint the painters Detaille and Puvis de Chavannes, the sculptors Dubois and Barrias, the Architects Garnier and Boileau, and the engineers Denfor, Bourdais and Badois, to act as independent members, with an equal number of official colleagues chosen from the highest ranks of the public administration. The idea does not appear to find disfavour with the popular representatives, and the Press receives it with general approval. We are anxious to hear how it will work out.

AMONG the Parliamentary Papers issued last week is the report of the Select Committee on Government Offices (Appropriation of Sites), together with a report of the evidence taken by the Committee. The Committee reports that it is desired to acquire as soon as possible the various interests in the property bounded by Whitehall on the West, Whitehall Place on the north, Whitehall Avenue on the east, and Whitehall Yard or Horse Guards Avenue on the south, and to proceed with the erection of a new War Office on this site, called the Carrington House site. The Committee also finds that there are many other Departments which stand in pressing need of concentration or extension and improvement of accommodation. These should, it considers, be brought together on the site now being acquired in and behind Parliament Street, on the surplus land belonging to the Government in Spring Gardens to the north of the New Admiralty, and in the neighbourhood of Downing Street.

EXTENSIVE improvements are being carried out in the Tower of St. Thomas's Church, Bristol. The old building, which was known as St. Thomas's Church, was destroyed in 1789, and the men who demolished it found their task very difficult. So solid was the masonry that some portions of it had to be blown up by gunpowder. The work of erecting the present building was completed in 1793. The original Tower, which is a very good example of the Perpendicular style, was allowed to remain, but it has now become so dilapidated that much restoration is necessary. A considerable portion is being refaced, and a new parapet and pinnacles are being added. As far as possible the old lines of the Tower are being followed, and the surface is being disturbed only where the stone is decayed. The cost of the work, which amounts to about £1,600, is being defrayed out of the legacy left by Mr. Frayne. Mr. Gough, of Bridge Street, is the Architect, and the work is being done by Messrs. Cowlin, who restored the Tower of Bristol Cathedral. It may be mentioned that the scaffolding erected around the Tower is well worth inspection, for the difficulties which interfered with its erection, owing to the lack of facilities for acquiring a suitable foundation for the structure, have been overcome with considerable ingenuity.

THE special report, agreed to by the Board of Management of the Royal Masonic Institution for Boys, Wood Green, will lead to considerable discussion, as it concerns the removal of the School. In 1891 attention was drawn to the undesirable site on which the School is placed, and in consequence thereof the Board was instructed to entertain negotiations for the sale of the property, with a view to the removal of the School. Through a period of forty years the present site and buildings have cost £100,000, but much of the expense has been due to alterations, the institution assets only being entered as £30,400. The Board has engaged to use every endeavour to dispose of the property to the best advantage, and it is anticipated that a sum much nearer half the complete cost will be realised by the sale. The number of the boys and the demands on the space have so increased that something must be done speedily to meet the needs of the institution. About twenty boys have to be educated out of the building because of the lack of accommodation, and at the present time at least £10,000 should be spent to adapt the building to the requirements of the period, which would lead to a still greater encroachment on the playground space, which now is lamentably little in extent, and the boys have to go, and do go, a considerable distance from the site to secure more accommodation.

SOME curious details are given in a contemporary anent the early days of the Liverpool and Manchester Railway. Travellers in the thirties were vastly pleased with the very indifferent accommodation provided for them, and thought that to pay five or six shillings to go thirty miles in one-and-a-half hours was the perfection of cheapness and speed. The compartments then in vogue were about as commodious as our London four-wheeled cabs. The first-class vehicles were painted yellow, and bore such names as Queen Adelaide, Marquis of Stafford, Treasurer, and Despatch. Being usually 18 ft. long, upon a base of only 6 ft., they pitched up and down considerably as they ran. To the second-class coaches there were light roofs or awnings, but often no sides and no doors; the colour of these airy conveyances was blue or pink. Lime Street Station, Liverpool, was not opened till 1836, prior to which "the passenger trains started from an obscure little place, rather like an inn yard, at Crown Street."

AT a recent meeting of the Belfast City Council an important report relative to the sanitary condition of the houses was submitted. The report, which deals exhaustively with the subject, states that there are upwards of 22,000 houses, chiefly occupied by the working classes, which have no back doors, and consequently all refuse matter has to be carried through the dwellings to the public street. In the case of many thousands of houses decomposing matter is retained for months within a few feet of the houses themselves. The radical cure for this state of things, the report points out, would be to close up all such houses as being unfit for human habitation, but this would mean the turning out of house and home of a population of about 100,000 people; and the providing of suitable dwellings for such a number of persons would be simply impossible. In this case the remedy would be worse than the disease.

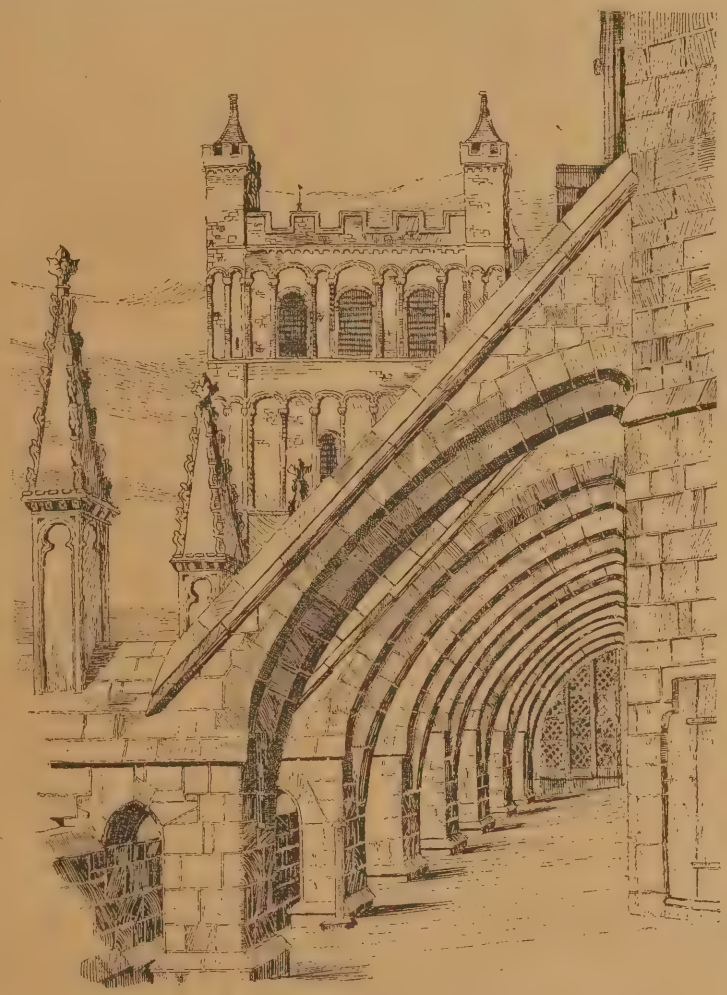
THE troubles of the East London Water Company at their West Warwick Reservoir are by no means ended. After having suffered for months from a drought which not even the first advent of rain relieved to any satisfactory extent, they are now in grave difficulties owing to the flow of water into the engineers' works. They have been pressing on the making of the new reservoirs with splendid energy, this particular work being likely to attain completion in April, or about four years before it is due according to the company's pledge. The flooding of water is due to the great depth of the reservoir, which in one corner is 30 ft. below the level of the Lea, and its close neighbourhood to the river. Another vast receptacle is to be finished this week, and another in a month.

CANTERBURY Cathedral restoration is making satisfactory progress. The work in the Crypt, which was commenced in the time of Dean Payne Smith, is now approaching completion. The bases of the columns, which have been covered with earth for centuries, have been uncovered, and by this means some of Ernulf's finest work is disclosed to view. With improved drainage, a concreted floor, and glazed windows all round, there will be no danger of the flooding which led to so stupid a disfigurement in the past. The beautiful work of the Lady Chapel is left intact, and in the Norman portion of the Crypt the exact spot where à Becket's body was hidden is indicated by a stone slab in the shape of the original coffin lid. The interior of the Chapter House is wholly occupied by scaffolding, it being hoped to have this part of the restoration completed in readiness for the great gathering of next year in connection with the thirteenth centenary commemoration of King Ethelbert's baptism. The stonework of the large windows at the west and east ends was crumbling, and it was found necessary to put entirely new jambs and coping above; but the delicate tracery of the windows and the mullions are to be preserved. This work is almost completed at the west window, and the other will be commenced shortly. Two out of four other windows which were blocked up have been opened. The fund at present amounts to about £12,500.

ANOTHER immense cavern, rivalling the famous "Mammoth Cave," has been found in Kentucky. It was discovered by Mr. Pike Chapman, near Proctor's Station, on the Mammoth Cave Railway. The entrance is halfway up a neighbouring hillside, and the floor of the cave is reached by descending a series of ladders. It contains a "Colossal Dome" 137 ft. high, and is now called the "Colossal Cavern." The main cave is 40 ft. high and 60 ft. wide, and is ornamented with fine groups of stalactites. The "Pearly Pool" is lined with tufts and sprigs of crystalline alabaster, and the water is clear as glass. Pillars of stalactites and stalagmites conjoined surround it, and the roof overhead is fretted with countless small stalactites. The cave extends for miles, but has not yet been fully explored. Crusts, rosettes, and "flowers" of gypsum, crystals of selenite, mantles of fibrous gypsum, branching crystals standing out from the wall like stags' horns, and deep pits are among the curios of the cave.

DURING the forthcoming session of the Architectural Association, the following papers will be read at the Institute, 9, Conduit Street: November 6th: Roof Coverings: (1) "Lead, Copper, and Zinc," by Mr. G. Ewart; (2) "Tiles," by Mr. F. Walker; and (3) "Slating." November 20th: "Garden Design," by Mr. F. Inigo Thomas. December 4th: "Street Architecture," by Mr. H. H. Statham. December 18th: "An Unwritten Chapter of English Architectural History," by Mr. A. S. Flower. January 15th: "Decorative Plaster Work" (with models), by Mr. E. Prioleau Warren. February 5th: "A Plea for the Application to Architectural Design of Natural Forms as Revealed by the Microscope" (with illustrations), by Mr. W. H. Seth-Smith. February 19th: "The Architect and the Public," by Mr. W. H Bidlake. March 5th: "Greek Sculpture and Greek Legend" (with lantern illustrations), by Mr. F. S. Granger, D.Litt.Lond. March 19th: "Eighteenth Century Work," by Mr. J. A. Gotch. April 2nd: "Architecture in Relation to the Crafts," by Mr. T. G. Jackson, A.R.A. April 30th: "The Classic Cornice," by Mr. Hugh Stannus. May 21st: "Plumbing and Sanitary Work" (with demonstrations), by Mr. S. S. Hellyer.

ONE of the most curious structures in Dublin is St. Michan's Vaults. The Church was erected just one thousand years ago in memory of St. Michenus, a Danish bishop, whose granite effigy in mitre, alb, and chasuble lies in the building. Underneath the sacred edifice, and restored in 1686, are receptacles for the dead, which arrest decomposition in corpses deposited there. There are five of these preservative chambers—namely, two under the Nave, two under the South Transept, and one under the Chancel. No one can form any idea beforehand of the sort of place, with its surroundings, where these old sepulchres are situated. As soon as one enters the sloping iron doors, and by the aid of nine steps has reached the ground floor, he at once inhales warm air, and quite dry, while the limestone walls display not the smallest trace of damp. Among the various theories which have been proposed to account for these phenomena, one may be mentioned. St. Michan's is built over an old oak forest—from which William Rufus obtained rafters and beams for the ceiling of old Westminster Hall, taken down in 1397. It has been suggested among other theories that it is the tannin here which solves the mystery of the undecayed dead.



ON THE LEADS, EXETER CATHEDRAL: SKETCH BY S. NEWCOMBE.

BUILT in the reign of Edward II., Chelsea Old Church was placed near the river in order to serve as a landmark. The Church, as originally designed, consisted of a narrow Nave, the length of which may be seen when the arch, in front of which the organ now stands, and which originally contained the west window, is examined, whilst at the north-west end was a Tower There are in the building characteristic specimens of fourteenth, sixteenth, and seventeenth century work. The arch at the east end is evidently part of the first Church, whilst the thickness of the rubble wall may be seen where it has been pierced to form a doorway to the Vestry. Robert de Hyde, in 1368, is said to have built a Chapel on the north side of the Church, and this Chapel is virtually the North Aisle of the Church, and is seated for worshippers. The South Aisle, the "More Chapel," as it is called, was built by "Blessed Thomas More" in 1528 the date is on the eastern pillar, the capital of which is Italian Renaissance work. This is especially interesting, for it affords an indication as to the direction to which English Architecture would have turned, had it not, as was all ecclesiastical Art, been checked by the Reformation. The second column, which was evidently carved by an English sculptor, still shows the holy water stoup and sprinkler. In 1666, when things had quieted down after the Restoration, the North and South Aisles were lengthened to the westward, the walls raised, the windows enlarged, and the whole building "beautified." Mr. Bowick, writing some thirty years after, declares, "The Church was furnished with all necessary ornaments, and the steeple with a good ring of bells by the great bounty of the noble and worthy inhabitants." They have at Chelsea a feature which is almost unique in London, namely, "chained books," books which were intended for public reading, but which it was found necessary to have chained to the wall.

M. BERTHELOT, the French chemist, proved a year or two ago, chiefly by analysing the copper sceptre of a Pharaoh of the Fourth Dynasty (4,000 B.C.) that the Egyptians of this early age did not know the use of bronze. The neighbouring peoples of the East, for instance, Mesopotamia, were also ignorant of this alloy. Berthelot has recently sent out an assistant, M. De Morgan, to visit the abandoned copper mines of the ancient Egyptians, which were situated in the desert of Sinai. The mines are in much the same condition as when they were abandoned by the ancient workmen. M. De Morgan has penetrated some of the galleries, and brought away specimens of the ore, the materials used in smelting it, with charcoal, the crucibles, tools, &c. Among the tools is a burin containing a little tin, but not enough to make bronze. A hammer of copper has a trace of arsenic in it, probably to harden it. There is also a hollow needle of pure copper.

KNOWN as the "Iron Gate," the great obstacle to the navigation of the river Danube, is now practically overcome, and it is intended that the canal for the passage of the rapids shall be formally opened by the Emperor of Austria on the 27th of this month. At this particular point the breadth of the Danube is only 129 yards, and the piled up waters attain a depth of 28 fathoms. Ledges of rock, we are told, "lift their tooth-like points above the surface, and a seething stretch of whirlpools, cataracts, eddies and counter-eddies combine with the river's rapid falls to present a serious and formerly impassable obstacle to navigation." It was to overcome this formidable obstacle that the cutting of the canal, now about completed, was undertaken. It has taken six years to complete the work. The canal, which runs alongside the ruins of one built by the Roman Emperor Trajan to effect the same end—the passage of the Iron Gate—is four miles long and 73 metres broad. The lowest part of the Canal, which opens into the broad bed of the river as it flows past Roumania, is hemmed in for the length of 1,700 metres by quay walls formed of enormous blocks of freestone blasted out of the rocks of the Iron Gate. This wall is twenty metres higher than high water mark.

SANITARY ENGINEERING AND HOUSE ACCOMMODATION.

BY SIR ANDREW NOBLE, K.C.B.

SIR ANDREW NOBLE, the President of the Engineering and Architectural Section of the Sanitary Congress, in delivering his inaugural address said, although an engineer, he had never devoted special attention to that branch of engineering with which the Congress was more immediately concerned. He said "special attention" advisedly, for no man of ordinary intelligence could avoid paying some attention to such vital questions as were involved in sanitary engineering. He was old enough to claim to have seen the very beginnings of sanitary engineering, in the modern sense of that term, for he thought they might fairly attribute its inception to the passing of two measures in 1847 and 1848—The Town Improvement Act and the Public Health Act. Certain Architects, engineers, and mechanics, were then led to devote special attention to the practical methods of ameliorating public health, and proved to be the forerunners of the sanitary engineers as we have them to-day—a class as necessary, as able, and as much appreciated as any in the community. The drainage of private houses, which must always remain by far the most important of any sanitary scheme, was altogether defective. The houses themselves were generally badly designed from a sanitary point of view. There was, as a rule, no public water supply, and the wells from which most houses drew their water were contaminated. There was no comprehensive scheme of town drainage. But even after the awakening, progress was at first very slow. It was the last quarter of a century that had witnessed those

SWEEPING SANITARY REFORMS

that had placed England so far in advance of any other country as regarded hygienic matters. In these days of fierce competition, when Continental rivalry was such a bugbear in almost every trade, it was satisfactory to find that England more than held her own in the field of sanitary engineering. In some foreign hotels he had seen statements to the effect that the sanitary arrangements were by some English firm; this being regarded as a practical guarantee of their hygienic efficiency. It was curious to reflect how very dependent on one another were the doctor and the sanitary engineer. The plague of smallpox at Gloucester had shown that all the advantages of modern sanitation would not avail where medical precautions were neglected, and the doctor, on the other hand, would find his skill and medicine impotent if his patient were living in an ill-drained and ill-ventilated house. There were many problems arising out of the growth of population which called for the attention of the sanitary engineer; but none were more urgent, he thought, than that of the water supply for large towns. It was not too much to say that an ample supply of water was the first requisite of town sanitation. Apart from drinking purposes, personal cleanliness was impossible without it, and healthy dwellings were impossible without it, because experience had shown that a water-borne system of sewage disposal was the only one admissible for town use.

THE WATER-BORNE SYSTEM

had no doubt grave disadvantages, yet all efforts to supersede it had so far been unsuccessful; and it might be taken for granted that the water-borne system must prevail in towns for many years to come. The limited space available in towns for building purposes, led very often to the erection of houses in situations where a thoroughly satisfactory fall was not obtainable. Such situations demanded exceptionally powerful flushing of the sewers, and much more water was required for that purpose. Water closets were coming into nearly universal use, and baths were very common even in low-rented houses. This meant more water. The bath was now a recognised feature of even the most modest house. He knew scarcely any direction in which sanitary progress had been more marked than in this essential. There were now baths in houses in Newcastle with a rental as low as £15, and they were being fitted, he was told, in many of the superior tenement houses. The ordinary bath in a private house used perhaps 20 or 30 gallons of water. The fixed bath in houses, the common use of water closets, the more perfect flushing of sewers, the more frequent watering of roads, the more general employment of hydraulic machinery all meant more water. If our houses presented a great contrast with those of his youth in both accommodation, they presented an equally favourable contrast in their arrangements for dealing with sewage. The water closet of former days was an evil thing, with complicated gear which was constantly getting out of order, and so boxed in with wood that it could not readily be got at. In most cases, it was a disseminator of foul gases through the house, and a fruitful source of disease. All was now changed. The cry of "something wrong with the drains" was heard much less frequently, and an outsider like himself could not fail to be struck with the evidences of anxious attention and clever design exhibited in these common-place but very necessary appliances. In such matters as

VENTILATION AND WARMING,

enormous progress had been made. Warming with hot water, which, in the South of England, was more or less of a luxury, was, in a colder climate, almost a necessity if larger houses were to be maintained in winter at a comfortable temperature. Enormous improvement had, during his lifetime, been made in the sleeping accommodation of an average house. In even the larger houses of a former date, everything was sacrified to the so-called Reception Rooms. The sleeping accommodation was altogether starved, the Bedrooms for the family were small and ill-ventilated, and those for the servants disgraceful. One often wondered, in looking through well-known houses at the end of the last century, and the beginning of the present, how the large gatherings of friends that certainly took place there were ever accommodated Such houses seemed large enough outside, but when it was attempted to allot Bedrooms to visitors, the Bedrooms were found far too few, and, with some exceptions, far too small for modern requirements. He fancied that the explanation of such anomalies was that our ancestors were content with

VERY MODEST WASHING ACCOMMODATION,

and that, in the case of the men, at least, and probably of ladies, too, each Bedroom did duty for several occupants. A mattress on the floor, or any other "shake down" was as much as an ordinary bachelor or spinster expected on a country visit at Christmas or other generally festive season. He remembered a passage in George Eliot's "Silas Marner" describing the heroine's visit at Christmas to the squire's house, which he ventured to quote:—"There was hardly a Bedroom in the house where feminine compliments were not passing, and feminine toilets going forward in various stages in space made scanty by extra beds spread upon the floor; and Miss Nancy, as she entered the Blue Room, had to make her formal little curtsey to a group of six." In Miss Burney's "Evelina" two daughters of a well-to-do silversmith were driven to dress somewhat hurriedly in the Drawing Room before their guests arrived. As for the servants, they slept as they could, huddled together in tiny rooms, in cupboards, or in the space under the stairs, in Box Rooms, or in any other recess that would contain a mattress. The country houses of Northumberland, so far as he had had opportunity of judging, were bad in their servants' accommodation, though he had no reason to think they were worse in that respect than those of other counties. Modern practice had greatly improved these matters, and a much better balance was now observed between the living and sleeping rooms of a large house. He was inclined to think that we erred, if anything, in devoting too much attention to our sleeping rooms, and were carrying a good theory to a fad in demanding that they should be so spacious and elaborately furnished. In conclusion, he would say, that though the details of sanitary improvement seemed often petty or commonplace, they should not, therefore, be led to think them unworthy even of master minds

FLUSH TESTS.

THE DIAMETERS AND INCLINES OF DRAINS.

BY ARTHUR B. PLUMMER, F.R.I.B.A., HON. SEC. NORTHERN ARCHITECTURAL ASSOCIATION.

IN March of this year, as Hon. Sec. of the Northern Architectural Association, I received a letter from Messrs. Oliver and Leeson, Architects, drawing my attention to the fact that the Newcastle and Gateshead Water Company were again requiring in their revised regulations (then issued), that service cisterns in connection with w.c.'s should not allow of a flush of more than two gallons. I was desired to get up a memorial amongst Architects and others requesting that four gallons might be allowed. With the use of the fittings recommended and used by the company, it was reasonably maintained that a two-gallon cistern was all that was necessary for flushing purposes within a residence, and it was mentioned that water companies were not required to provide water for flushing drains outside a dwelling, but simply for

DOMESTIC PURPOSES.

The representatives of the Water Company next invited Mr. Leeson and myself to the Manor's Yard, and kindly arranged to fit up various cisterns and w.c. fittings, and lengths of drains for our further private inspection before inviting the members of the Council of our Association to give the matter their consideration. On May 29th, Mr. Leeson and I spent a morning at the Manor's Yard, together with Mr. Alfred L. Foster and Mr. Askwith of the Water Company. We made a number of experiments aud tests in connection with the various apparatus then fitted up. There were two lengths of drain pipes laid (each about 83 ft. long). One length was formed of 6 in. drain pipes, with a fall of 1 in 40, and having a Buchan trap at 19 ft. from where the drain gradient commenced, and with an obtuse bend at 12 ft. from the discharge mouth of the drain. The second length was formed of 4 in. glass lined pipes, with a fall of 1 in 60, and having a Buchan trap at 6 ft. from the start of the drain gradient, with a right angle bend at about 12 ft. from the discharge mouth of the drain. Various w.c. apparatus were fitted up in connection with these two lengths of drain, and were placed at heights representing the ground and first floor levels of a dwelling house. We first tested the 6 in. drain with a ground floor Shanks' two-gallon flush syphon cistern with a 1¼ in. flush pipe. The distance from the water line in the cistern to the top of wash-down basin was 3 ft. 8 in., and from the top of the basin to the bottom of the pipe where the drain gradient commenced was 3 ft. 8 in. A mixture of soft soap and sawdust, weighing 10¼ oz., and without paper, was placed in the basin. The first flush cleared the basin, but it was not till the sixth flush that half the charge came out at the mouth of the drain, and at the eighth flush the remainder came out. We carried out eight other similar courses of tests with various flushes, &c., detailed particulars of which have been retained. We noticed from the foregoing tests that although the 4 in. drain was not of so steep a gradient as the 6 in. pipe, and although it also had a much more acute bend in it, the result of these experiments was decidedly in

FAVOUR OF THE SMALLER DRAIN PIPE.

Sufficient had been done during this morning's work to convince those present of the importance of these experiments; it was felt, however, that the only way to obtain exact results was to make a very large number of similar experiments in connection with each drain and apparatus, and to strike an average of the results in each case. The Water Company's representatives proposed that the Northern Architectural Association should send a representative to work in conjunction with their Company's agent in connection with these proposed further tests, and in accordance with

* Extracts from a Paper read before the Sanitary Congress, at Newcastle.

this suggestion such arrangements as desired were subsequently agreed upon. I think we may take it for granted that no Water Company would desire to supply less water for flushing purposes than such an amount as may be the minimum quantity necessary. It would be undoubtedly penny wise and pound foolish to supply too small a flush, as in such a case two or more flushes would be found to be necessary, and would undoubtedly be used by the consumers instead of one of adequate amount. Now that pedestal closets are being universally introduced, and are used at all times and for all sorts of household purposes, the much greater amount of water wasted and used than was formerly the case, becomes a matter of serious consideration for any Water Company. I am clearly of opinion that all

SYPHON CISTERNS ARE A MISTAKE,

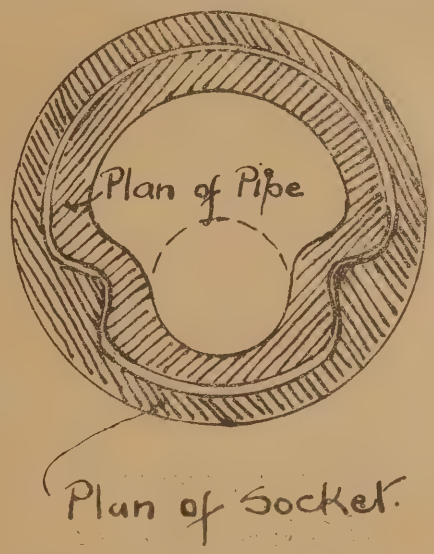
so far as water companies are concerned, and they are not necessary from other points of view. Of course, in the case of syphon cisterns, the full amount of the flush, say two gallons, is obliged to be used upon every occasion, whereas with other cisterns only half a gallon can be used if desired, and in many instances may be all that is necessary; on other occasions it is, however, quite indispensable that the handle should be pulled until the full two gallon flush is obtained. Various Architects have for long been convinced that many local authorities often compelled drains to be laid of unnecessarily large diameters in connection with private properties, and have felt that if only such authorities could be convinced that such is the case, it would be a decided advantage. If the Water Company's experiments help to prove that drains of as small a diameter as necessary are more easily flushed and kept clean with a minimum flush than drains of unnecessarily large diameter (which more easily choke up and become foul), we may reasonably expect that some good will be the result of these experiments. I know of instances where, in the case of drains from even single w.c.'s nothing less than a diameter of six inches will be allowed by local authorities. I may mention that the Education Department seem to understand the importance of not having large drains; in their Code of Regulations they state that four inches in diameter is sufficient to receive the discharge of as many as ten w.c's. I find that the bye-laws of the various local authorities in the north of England practically leave the question of diameter to the discretion of authorities. It is generally stated that "the drains are to be placed in positions, of such size, and of such materials, and at such levels as may seem to the Council sufficient for the purpose of effectually draining the same," or else it is stated that "every drain shall be of adequate size, and if constructed or adapted for conveying sewage to have an internal diameter not less than four inches." It would seem to me to be desirable that the maximum as well as the minimum size of drains should be stipulated and considered, and that

A REGULAR SCALE OF SIZES

of drains should be drawn up and included in the bye-laws (as in the case of the various thicknesses of walls); if such scale were not binding in every case it would, at any rate, be able to be referred to as a guide by any council or architect as to how they should use their discretion. I may perhaps mention that the London County Council made an application to the Local Government Board last year desiring that the flush might be increased from two to three gallons, the result of this enquiry was that the two-gallon flush was adhered to. I am of opinion that two gallons is sufficient for satisfactory sanitary apparatus, but not enough for flushing large drain pipes laid to a gradient of from 1 in 40 to 1 in 80—of course, many cisterns, nominally two gallons, contain both more and less than that amount. If consumers obtain water by meter, they can, of course, have a larger flush, and in certain cases this may be necessary, or else by some means they should have drains of a size and incline, &c., that can be flushed with the Company's allowance of water. On August 11th a new series of tests were commenced, when four 82 ft. lengths of drain were laid to a gradient of 1 in 40, and alongside each other, viz.: 6 in. and 4 in. sanitary pipe drains, and 4 in. and 3 in. glass-lined metal pipes. Each length had an almost right-angled bend at 12 ft. from the mouth, at a further distance of 4 ft. there were Buchan's traps in the 6 in. and 4 in. pipes, and a Dubois' trap in the 3 in. pipe, at a further distance of 8 ft. there were four junctions in connection with yard conveniences, 58 ft. beyond the drains were connected with four soil pipes, each having connection with ground and first floor w.c.'s. All the cisterns were two gallon, with 1½ in. flush pipes and Hopper basins. We started to experiment with the 6 in. drain by charging the top floor w.c. with a six ounce solid mixture of soft soap and sawdust, &c., as before, and flushing with two gallons; the same thing was next done in connection with the ground floor closet and then with the yard w.c. We commenced again and continued in rotation as before till each of the three closets had been flushed and charged twenty times. After the fourteenth round the

DRAIN WAS ENTIRELY BLOCKED.

Of twenty-two and a-half pounds put in only seven passed out. Considerable force was necessary with a hose-pipe next morning to clear this drain out again. Similar experiments in connection with the 4 in. sanitary pipe resulted in the charge passing much more freely through it till a stoppage took place at the end of the



Section of Drain Pipe proposed by Mr. Plummer, maintaining the advantages of the circular exterior, and also obtaining the small and large circular interior, for flushing and flood purposes, and avoiding the objection of being top-heavy and difficult to manufacture as is the case with the otherwise excellent egg-shaped pipes.

sixth round, and again a very considerable flush was necessary to clear the drain. In the case of the 4 in. metal pipes the results were satisfactory, and the 3 in. metal even more so, each charge practically came direct through the drain with each flush, and it therefore became unnecessary to again test this drain under less severe circumstances. It must be remembered that in allowing a two-gallon flush, the Newcastle Coupany are only doing what almost all other companies in the kingdom do (who give the matter much consideration) with I understand the exception of Southend, where a two-and-a-half gallon flush is conceded. This was, however, agreed to before the date of the Local Government Board enquiry, already referred to. This also is the case with Bradford where there is (or was) a three-gallon flush. I may, however, mention that there was a very serious water famine at Bradford two or three years ago. It would, perhaps, be possible satisfactorily to meet the requirements of the water companies, and the present demands of local authorities, by having large drains of a V or egg-shaped section. Another satisfactory course would be to convey waste water from baths, etc., to a flushing tank at the head of the drain, or where bath wastes can be conveyed direct there, no better flush could be desired under almost any circumstances. We conducted a further series of tests at the Water Company's yard, allowing consideration for other water flowing in the drains between the use of the w.c.'s. The closets were therefore charged in the same way as before, and in the same rotation, but after each flush with the charge in it, each cistern was discharged a second time into the drain simply as water without any charge. In no case was this second flush of the nature of a four-gallon flush at one time, because the first flush was allowed to be cleared through the drain and the cistern to fill again before the second was discharged into it. In the case of the six inch drain the second flush had the effect of preventing the stoppage, as was the case in the former tests, and the four inch and three inch pipes worked satisfactorily. A third series of tests, similar to the first, was conducted with a two and a half instead of a two-gallon flush, with the result that the six inch pipe now worked satisfactorily, and it therefore became unnecessary to test the four inch and three inch pipes in this way. I am of opinion that wash-down closets are the best from a sanitary point of view, and for flushing purposes.

KEYSTONES.

WALMER CASTLE, the official residence of the Lord Wardens, is to be thoroughly done up and the grounds put into good order.

IT has been decided to enlarge and rearrange the present Unitarian School buildings at Todmorden, at a cost of from £800 to £1,000.

NEW Sunday Schools have been erected by the Baptists in King Street, Desborough, Northampton, at a cost of £800.

A NEW organ has been placed in Long Eaton Parish Church, built by Messrs. Brindley and Foster, Sheffield, and decorated by Messrs. Guttridge and Son, Long Eaton.

AT Kirriemuir a new Parish Church Hall is to be erected, and the committee has invited competitive plans for the erection of the building.

IT is suggested to build a new Bridge on Crookston Road, over the river Cart, at Howford—the probable cost of a new Bridge and approaches is estimated at £5,500.

IT is proposed to pave the whole of the Chancel of Holy Trinity Church, Bury, with marble or mosaic work, and to raise the Altar by one step.

FOOT'S CRAY PLACE, the well-known Kentish home of the late Sir John Pender, and the scene of some notable Saturday to Monday parties, is about to be sold. Built a century and a half ago, it is full of historical associations.

THE large works of Messrs. Humphrey, situated at the corners of Ebury Bridge and Buckingham Palace Road, were destroyed by fire last week. The structure was chiefly of corrugated iron, and a large area of this material covered in a vast amount of timber.

A BLOCK of School Buildings is in course of erection in Pomeroy Street, Cardiff, near Clarence Bridge. The Schools will be in the Gothic style, with best faced bricks and Bath-stone dressings, and there will be a large Play Ground adjoining. The cost of the building is estimated at £2,000.

ON October 12th the new Central School of Arts and Crafts, organised by the Technical Education Board of the County Council, will commence operations in Morley Hall, Regent Street, under the direction of Mr. George Frampton, and Mr. W. R. Lethaby. The chief classes will be held in the evenings, but the School will also be open in the daytime.

PERMISSION has been granted to the Cumberland and Westmoreland Antiquarian and Archæological Society to undertake a series of excavations at Furness Abbey. Many carved stones and other relics have already been found, and at present a beautiful staircase, supported on massive masonry, is being brought to light.

DURING the long vacation the Benchers of the Middle Temple have taken steps for the purpose of completely renovating the buildings in their charge. Plowden Buildings, fronting Middle Temple Lane and adjoining the spacious and renowned Hall, are undergoing considerable internal alterations. The Middle Temple Hall has also received attention in the matter of decoration. The historic Temple Organ is being completely restored.

VEHICLES FOR HEAVY TRAFFIC.

HORSE *v.* MOTOR.

AN address on the subject of "Motor Vehicles for Heavy Traffic" was recently delivered by Mr. W. Worby Beaumont, editor of the "Engineer," to members of the Liverpool Chamber of Commerce. Mr. Beaumont remarked that the public would soon be free to run motor vehicles under conditions much more satisfactory than those which had hitherto obtained. Time would show whether engineers and others who were entrusted with the construction of these vehicles would make the freedom a blessing or otherwise. At the outset it must be admitted that they were not much further ahead at the present time as regarded the heavier class of traffic than they were sixty years ago; and they might look back with very great pride to the pioneer work of Hancock and several of his contemporaries in arriving at a greater degree of success than had even yet been achieved by those who, in France, Germany and elsewhere, were now making the vehicles of which so much was heard. While he did not wish to underrate the importance of the light vehicles which were now constructed—most of them of the benzoline motor kind—he had pleasure in referring to the fact that it was due to Englishmen that motor vehicles were invented and brought to a great state of perfection, and only kept in the background by another class of Englishmen. Summing up the present position as regarded heavy traffic, he remarked that, with the exception of the teachings of the traction-engine makers and the makers of light road locomotives, they had nearly everything yet to learn. The experience already gained had been almost entirely relative to the lighter vehicles, not weighing at the outside more than perhaps from 30 to 35 cwt., and incapable of conveying more than from 10 to 15 cwt. of goods. With one or two exceptions these modern vehicles had all been light petroleum or benzoline motor vehicles. Steam vehicles had been very few in number, and only of the same character as those built years ago, so that they had yet in a greatmeasu at all events to commence experiments the direction of constructing something which would do the work of a traction engine combined with a useful vehicle of one of the numerous forms required for different descriptions of merchandise. Changes would come very slowly, and those who owned horses must still look to them as their most important means of conveyance. The traction engine was certainly one of those vehicles which would stand any amount of work, and the experience of the builders of these ought to be of very great value; but at the same time they were only beginning to imagine what vehicles might be constructed for highway work. With the growth of the motor vehicle and the improvement of the roads which this would necessitate, higher rates were bound to come. But for the restrictive legislation, more particularly of local governing bodies, they would have had all the time which had elapsed since the day of Hancock for the improvement of motor carriages, and these would probably have reached at least as great perfection as the locomotive. Proceeding to describe the possibilities of various motor vehicles, Mr. Beaumont said the steam motor must be regarded, for a considerable time at all events, as the one which gave the greatest amount of promise. Not only light carriages, but omnibuses and vans for light traffic were being built in France and Germany, but the frequent hitches in their working led Englishmen to hope for something better from their own engineers. At present goods might be hauled by the light road locomotives over average good roads at a cost of from 1¾d. to 2½d. and 3d. per ton per mile. Electrical motor carriages were out of the question for long distances and country roads, though they might be advantageously employed in towns (where charging stations were convenient) for carrying light loads; inasmuch as the rotary motor ran very smoothly, and possessed the flexibility of the steam motor. Mr. Beaumont next proceeded to point out the difficulties of steering motor vehicles, remarking that the horse was always of help to its driver by reason of its instinct, which led it to avoid obstacles and to prepare itself for stoppage or starting. Drivers of motor vehicles would require considerable experience and training, and it would be necessary to employ two men, or, at all events, one man and a boy, where only one man was at present required. Mr. Beaumont concluded by repeating that satisfactory self-propelling vehicles for heavy traffic had yet to be designed, and that those who at present employed ordinary cartage could not do better than "stick to their horses."

THE TRADES UNION CONGRESS.

THE Trade Union Congress held its final sitting on Saturday. It has had a busy week, and has passed resolutions by the score, some of them of a very far-reaching character, and for many reasons open to remark. On one point, however, it has shown itself more moderate in its aims than former Congresses have been. Mr. Keir Hardie's famous resolution for the nationalization of land and of all the means of production, distribution, and exchange, though not actually rescinded, has for all intents and purposes been set aside, and its place has been taken by a new resolution in favour of the nationalization of land, mines, minerals, royalty rents, and railways, and of the municipalization of water, artificial light, and tramways. It was urged by some of the delegates that the list was incomplete, since factories and workshops were still to be permitted to remain in private hands, but the suggestion that they should be included fell flat, the Congress being of opinion that its Parliamentary Committee would have quite work enough in obtaining the sanction of the Legislature to the list in its more modest form. The desire of the Congress to extend the functions of Government in so many new directions contrasts curiously with the complaints it makes about the conduct of the Government in matters already under its control. It declares that the Labour Department of the Board of Trade is totally inadequate for the purposes for which it was instituted; it finds fault with the Postmaster-General and with the Secretary of State for War for having refused to meet deputations about the grievances of Government employés, and as for the state of things in Government dockyards, it finds that all trades employed have good cause to complain of what goes on. The grievances are that labourers are put in to take the place of skilled workers—presumably to do work which they are perfectly well qualified to do—and that there is a wholesale system of "blacklegging," which means, we suppose, that Trade Unionists are not employed to the exclusion of free labourers, as in the judgment of the Congress they ought to be. There was a protest, too, against recent decisions of the Judges about picketing, but as the decisions went no further than to declare that pickets must limit themselves to persuasion and must not employ or threaten to employ violence, the protest very prudently does not explain exactly where the wrong comes in. A legislative eight hours' day for miners was approved by a majority vote. A motion for a new Employers' Liability Act with no contracting-out clause was generally approved. We should have welcomed a more clear proof that the lessons to be learned from the proceedings at the late International Workers' Congress had been kept in mind by the delegates in Edinburgh and that something more had been done in the direction of practical reform. One or two resolutions there were of a really practical character, but most of the proposals were of the same abstract, impracticable kind as those which the International Congress has by universal consent been rightly blamed for confining itself to. On the important question of income and expenditure, the accounts for the past year are not very satisfactory. The Congress had a total income of £2,677, of which £1,104 was derived from the surplus from the year before. It has now a balance of £752, so that the actual year's income has been considerably overspent. Among the items of expenditure we find £250 put down to the account of the International Congress, and this, at all events, we may consider as money absolutely wasted. Trade Union Congresses have so long been in the habit of passing resolutions for all sorts of impossible reforms, and have had such ample experience of the negative results which have followed, that we hardly think that they will feel any acute disappointment when they find, a year hence, that the land and the mines and the railways have not yet been nationalized, that our system of education has not been entirely remodelled, and that the taxation of ground values has not been settled, and that it is as open to them as ever, on these and on a variety of other subjects, to pass resolutions and to maintain about all of them the same expectant attitude as before.

EXTENSION OF THE NATIONAL PORTRAIT GALLERY.

THE annual report of the Trustees of the National Portrait Gallery was published on Saturday. After mentioning the loss of Lord Leighton and Sir John Millais, the report states that since the publication of the last report the work of cleaning and repairing the whole collection has been brought to a satisfactory completion. The whole collection of paintings has been surface-cleaned, and in some instances the pictures have been re-varnished, other repairs have been executed, and the re-arrangement of the whole collection of portraits in painting and sculpture has been completed, the classification being as far as possible chronological. As to the required extension of the Gallery, "The Trustees find themselves constrained to call attention to the fact that the space for hanging pictures in the New Gallery is almost entirely occupied, and already raises difficulties, which are certain to increase every year. It is already barely possible to add any portraits to those already on the walls except by placing them in or shifting others to places which, from want of light and from other deficiencies, are wholly inadequate for the exhibition of pictures. An extension of the building is inevitable in the future, and the only possible means of carrying it out is by building over some portion of the ground to the west of the building, now occupied by the military authorities." In reply to a question by Mr. W. E. H. Lecky, M.P. one of the Trustees of the Gallery, in the House of Commons, on May 5th, 1896, the following statement was made by the Right Hon. A. J. Balfour, First Lord of the Treasury:—"I understand that negotiations are now going on with the War Department with regard to this site. At the end of three years part of the site will revert to the National Gallery. We have no ground for supposing the remainder will not be required for military purposes. If this should prove not to be the case, the claims of the National Portrait Gallery will be considered." The Trustees desire to urge the absolute necessity that no partition of this site should take place which does not provide for the extension of the National Portrait Gallery.

A PARIS correspondent writes: the most powerful lighthouse in the World, now being built at Penmark Point, in the Department of the Finisterre, is now more than half finished, and will, it is said, be inaugurated at the end of next summer. The "Petit Journal" gives some interesting information concerning it. The height of the Tower is 63 metres, which will enable it to be seen during the day from a distance of 30 kilometres in fine weather. During the night its light will be visible for 100 kilometres. The Penmark light will have cost, when completed, £24,000.

THE old town of Bruex, in the centre of wide-spread peat bogs between the two famous thermal places, Carlsbad and Teplitz, is threatened with ruin by the irruption of subterranean water into the peat bogs. The water has broken into the Anna mine, and the ground above the mine was set in motion. Deep and wide pits opened in the railway station, and in the neighbouring streets three new built houses are falling in. Many other houses are damaged. A pier of the iron railway bridge is hanging free without support. The railway traffic is interrupted.

Professional Items.

RYTON, CONDOVER.—A new Mission Room is being erected from plans prepared by Mr. J. Nurse. The builder is Mr. J. Price, of Bayston Hill.

RHONDDA VALLEY.—A new Baptist Chapel was recently opened at America Fach, in the Rhondda Valley. The Chapel was built by Messrs. Jenkins and Son, Porth, and will seat over 600.

LEEDS.—Considerable alterations and extensions have been made at the Leeds College of Music under the superintendence of Messrs. Swale and Mitchell. The whole of the premises formerly occupied by the Yorkshire Technical College have been purchased and utilised for Class Rooms, &c.

SOMERSHAM.—For some time past workmen have been carrying out various alterations and improvements in the Baptist Chapel. The contract price of the work was £250, and the contractors are Messrs. Parren, Watson, Grounds, and Peaks, under the direction of Mr Robb, who was the Architect engaged.

PENARTH.—On Wednesday, the new Parish Room for the All Saints' district of Penarth was opened by the Lord Bishop of Llandaff. The building, which is close to the Church of the Parish, has been very substantially built from the designs by Mr. J. Coates Carter, and will accommodate about 300 persons. The total cost will be upwards of £1,100.

PORTRUSH.—The memorial stone of the Kelly Memorial Schools, Portrush (now approaching completion) was recently laid by Lady Macnaghten, of Runkerry. The new Schools occupy a site opposite Victoria Street, and are of modern design and ample proportions. Mr. R. W. Seaver, Belfast, is the Architect, and the contractor, Mr. Alex. Graham, Portrush.

STANDISH.—The new Wesleyan Methodist buildings consist of Chapel, with Orchestra, School Room, five Class Rooms, &c., and are set back 50 ft. from the street. The Chapel will seat 350, and the School will accommodate about 400 children. Mr. W. H. Dinsley, of Chorley, is the Architect, and Mr. Joseph Wilson, of Wigan, the builder. The cost is estimated at £2,500.

STAMFORD.—The new Cattle Market which has been built by the Corporation, at a cost of nearly £8,000, was opened last week by the Mayor. The new Market stands on what was formerly known as the George Close, near the Midland Railway Station, and its area is about 7,000 square yards. The usual offices are provided, and there is an enclosed weigh-bridge. The contractor was Mr. John Woolstone, of Stamford.

BRYMBO, WALES.—Memorial stones of a new Calvinistic Methodist Chapel were recently laid by Lady Morgan. The Chapel is being built on the site of an old one, and is designed to seat 540. There will also be a School Room attached, which will accommodate 250, having two Class Rooms. The estimated cost of the building, including the fittings, is £2,300. Mr. Bradshaw, Gwersyllt, secured the contract, while Mr. J. E. Lash, Wrexham, is the Architect.

BURY.—A new Wesleyan Chapel and Schools, the memorial stones of which were laid in the early part of the year, were recently opened at Pits-o'-th'-Moor, Bury, by Mrs. Clifford Davies. The building has been erected at a cost of about £3,500, from designs and under the superintendence of Messrs. Green and Brockbank, Architects, of Liverpool. There is accommodation for about 700 in the Chapel, while there are also six Class Rooms, a Guild Room, two Lecture Rooms, and two Vestries.

DUMFRIES.—A new Catholic School has just been opened at Dumfries. It is situated in Brooke Street, and is a large rectangular building of two stories. There is accommodation for 500 pupils, and the cost is £5,000. Mr. James Barbour, Dumfries, was the Architect, and the contractors were Messrs. Crockstone and Son, masons; Mr. R. Tinning, joiner; Mr. R. Milligan, slater; Mr. R. M. Glover, plumber; Mr. W. Walker, plasterer; Mr. R. M'Gill, painter and glazier.

BILBAO.—The members of the Iron and Steel Institute, at their Annual Meeting at Bilbao, will doubtless have noticed that the Municipal Authorities are engaged in carrying out a complete system of Sewerage on the most approved plans. The engineer's specification is exceptionally stringent in regard to the quality of the materials and manufacture. The stoneware pipes are all subjected to the severest tests under inspection before leaving the manufactory and the specification provides that they shall be made by the Albion Clay Company, Limited, and must bear the impress of the trade mark, "Granitic Stoneware," and after testing to be marked "Tested."

MOSS SIDE.—The foundation stone of a Free Public Library, to be erected by the Urban District Council, was recently laid. The site is at the corner of Bradshaw Street and Moss Lane East, and adjoins the Council Offices. The building, which has been designed by Mr. Acton, the Council's surveyor, is to cost about £2,500. It is to consist of a basement and two stories above ground. The basement will be available for Class Rooms and small meetings. The ground floor will be devoted to the reference and lending libraries and News Room. The upper story will consist of a large room (which can be divided when necessary) suitable for lectures, meetings, concerts and exhibitions.

LEEDS.—It is proposed to erect a new Hotel, which will be known as the Hôtel Métropole, and the site chosen is a portion of the Old Cloth Hall Estate in King Street. The entrance will be in King Street. Here a projecting Porch will give access to the Vestibule—a Hall and Lounge, divided by columns into two arcades, and lighted from a domed ceiling. The centre part of this Hall will be carried through two stories, and a picturesque feature will be a couple of Balconies corbelled out from the first floor corridor, from which a view will be obtained of the Hall below. The whole of the Public Rooms will be on the ground floor. On the other floors will be provided various Reception Rooms, and some 150 Bedrooms, &c. The exterior of the building is designed in the Renaissance style, treated with considerable richness. The material will be red brick and terra-cotta. Messrs. Chorley and Connon are the Architects.

HARWICH.—New Board Schools, situate in the Main Road and Bathside, were publicly opened by Mr. James Round, last week. The building is divided into two divisions, one for girls and one for infants. It is a well-built structure of local red brick, with Bathstone dressings, having a frontage of 136 ft. On the right first floor are three Class Rooms, affording adequate accommodation for 240. On the left of the same floor there are three Class Rooms for infants, accommodation being provided for 218, making a total accommodation for 458 children. On the ground floor is a Cookery Class Room, Cloak Rooms, Teachers' Room, Lavatories and covered-in Play Grounds. The buildings are well lighted throughout and provision is made for efficient warming and ventilation. The floors are fireproof, faced with pitch-pine blocks, while the rooms have matchboard dados. The Architect is Mr. J. W. Start, of Colchester, and the builder, Mr. E. Saunders, of Dovercourt. There is a large open Play Ground for the School for the girls, and a smaller one for the infants.

The Bathside School, opened at the same time, is situate only a few hundred yards from the Main Road building, across the railway, abutting on the Stour Road. This building which has accommodation for 150 girls and 240 infants is also a substantially built structure, much resembling the one already described. It has a frontage of 126 ft., and the building contains two spacious well-lighted and ventilated Class Rooms for girls and three for infants. All the rooms are on the same floor. An open Play Ground adjoins the School. Mr. Start was the Architect of these buildings also, the builders being Messrs. Smith, Beaumont and Dawson, Dovercourt.

CARDIFF.—A new Temperance Hall at Cardiff, built by Mr. John Cory, in memory of his late father, was opened on Wednesday last. The Hall, which is situated near the Taff Vale Railway Station, has elevations to Station Terrace and Edward Street, and is constructed principally of Bathstone, relieved between the columns with Llantarnam red brick. The main entrance is from Station Terrace, a flight of steps leading to a vestibule. The interior is of light appearance, considering that the Gallery, which goes round three sides of the building, is of unusual width, and that the exterior of the structure does not appear to be of great height. There are three separate staircases leading to the Gallery, which will greatly facilitate ingress and egress to and from that part of the building. On the side facing the main entrance a commodious Orchestra has been erected. The Hall will seat about 1,400 persons. Underneath the main Hall is a room calculated to seat about 400 persons, and there are several Ante Rooms suitable for committee meetings, &c. The Architects are Messrs. J. P. Jones, Richards, and Budgen, and the contractors Messrs. Evans Brothers. Messrs. Trapnell and Gane are responsible for the furnishing of the Hall, while the lighting and ventilation has been carried out by Messrs. James Stott and Co., Manchester.

NORTHALLERTON.—The plans prepared by the Oxygen Sewage Purification Company, Limited, for the purification of the town sewage have been approved, and the system adopted. The process is based on the researches of Mr. W. E. Adeney, with whom Mr. W. Kaye Parry has been associated in the practical features of the system. Mr. Adeney has dealt exhaustively with the scientific principles upon which his work has been based in a series of communications to the Royal Dublin Society. He has also read a paper before the Institution of Civil Engineers of Ireland, showing the application of his methods of research to the questions of river pollution and standards of purity. The oxygen system was tried last year on a large scale at Halifax, and favourable reports upon the effluent were obtained from Sir Charles Cameron and Professor Hartley. The District Council does not intend to apply for a loan for the purpose of erecting the works, but to make a special rate for one or two years and to pay for the whole of the cost of the installation, including works and plant within this period. The very inexpensive character of the tanks, buildings, and machinery required for the oxygen system render this method of payment practicable. The Northallerton Sewage Purification Works have been designed by Mr. W. Kaye Parry, and they will be carried out under his supervision.

IT is stated that fifteen large establishments in Paris have abandoned electric for Welsbach gas lighting, with 2,300 burners; eight large Cafés, including the Café de la Paix in the Place de l'Opera, have put up Welsbach's in addition to electric lighting, and several works are said to be waiting until their agreements with the electric companies have run out to put in Welsbach's.

M. KILDISCHEWSKY, a Moscow electrician, claims to have made a very important discovery in the improvement of telephonic communication. The essential principle of the improvement is that distance makes no difference to the carriage of sound, or, at least, that a telephonic communication may be carried over distances as long as in the case of a telegraphic current.

THE Monument to the late Archdeacon Denison has just been finished, and been placed above the grave in East Brent Churchyard. It consists of a massive coped body-stone of simple grey Dartmoor granite—a monolith weighing in its finished state over two and a half tons. At the head is a low cross, whose shaft and arms are octagonal in plan, and made of the same material.

Trade and Craft.

THE SPANISH IRON INDUSTRY.

The most interesting feature of the visit of the Iron and Steel Institute to Spain, from a trade and technical point of view, was the excursions made to the different works in the neighbourhood of Bilbao, where the manufacture of iron and steel is carried on. There are three works of importance in this locality, the first and the earliest of these is that known as the Altos Hornos Works, belonging to a Spanish company. The second is the Vizcaya Works, which is also the property of a limited company, owned entirely by Spaniards, and the third is the San Francisco Works of the Marquis de Mudela. There are in addition two small Tin-plate Works, a Dockyard or Shipbuilding establishment, where three of the largest vessels in the Spanish Navy have been constructed within the last few years; and there are also some works of minor importance for the manufacture of tubes, &c. All these works are modern in their origin and equipment. The conditions as regards labour are not unfavonrable, although it was remarked that a considerable number more men are employed for a given production than would be employed in English works of the same character. Women and children of tender years were found doing labour that would not be allowed in England. With an annual output of about 100,000 tons of pig-iron, the Altos Hornos Company can turn out 45,000 tons of rails per annum, 6,000 tons of plates, and 15,000 tons of other steel. They also have a forge in which they produce about 12,000 tons of puddled iron annually. The Works employ about 3,000 workmen, who are well looked after compared with the Spanish workmen generally. At the Vizcaya Works the most interesting feature of the operations carried on was the Robert process, a modification of the Bessemer system.

BUILDINGS IN ABERDEEN.

The plans of the following new buildings have been sanctioned:—Additions and alterations at No. 21 Albyn Place, for Mr. James Hay, per Messrs. Matthews & Mackenzie, Architects. Alterations at No. 65, Union Street, for Messrs. John Falconer and Co., per Messrs. W. and J. Smith & Kelly, Architects. Four dwelling-houses on the north side of Carlton Place, for Messrs. J. King & Co., per Messrs Brown & Watt, Architects. Five dwelling-houses on the west side of Balmoral Place, per Mr. John Cameron, builder. Store on the north side of Raeburn Place, for Mr. John Grant, per Messrs. Walker and Duncan, Architects. Two dwelling-houses on the west side of Brighton Place, for Mr. David Smith, per Mr. John Cameron, builder. Alterations in connection with the Aberdeen Comb Works, for Messrs. S. R. Stewart and Co., per John Rust, Architect. Dwelling-house on the south side of Desswood Place, for Mr. Joseph Corbett. Dwelling-house on the south side of Urquhart Road, for Mr. J. Innes, per Mr. Isaac Wishart, View Terrace. Rebuilding of premises Nos. 33-35, Miller Street, for Mr. G. Brown, per Messrs. Brown and Watt, Architects. Offices and Show Room on the west side of Market Street, near Palmerston Road, for the Seaton Brick and Tile Co., Limited, per Messrs. Ellis and Wilson, Architects.

THE MANCHESTER ENGINEERS.

The Manchester working engineers have applied for an advance of 2s. per week in wages, which the employers have refused. The number affected is many thousands. In their reply to employers, issued on Saturday, the men say that they regret the tone of the employer's reply, containing as it does a blank refusal. They add that, being satisfied that their wishes are just, reasonable, and opportune, they have determined, before proceeding with extreme measures, to make another pacific effort to obtain the advance. If a strike occurs, important engineering industries will be paralyzed.

THE Opera House at Benton Harbour, Michigan, has been destroyed by fire.

SOCIETY MEETINGS.

Glasgow Institute of Architects.—The Annual Excursion of this Institute, under the leadership of the President, Mr. T. L. Watson, took place on the 3rd inst., and was made to Ayr, Maybole, and Culzean Castle. The old College and Castle at Maybole were visited, and the party continued their drive *via* Crosraguel Abbey and Kirkeswald Old Church. Under the guidance of Mr. J. A. Morris, of Ayr, who has written a book on the subject, a careful examination was made of Crosraguel Abbey, and the party then proceeded to Culzean Castle, where the members visited the interior and the gardens through the kind permission of the Marquis of Ailsa and Lady Ailsa. The fine staircase and the principal rooms of the Castle, which is among the most interesting of the works of Robert Adam, and the collection of old arms, pictures, and articles of vertu were greatly admired.

Devon and Exeter Architectural Society.—The members of the Plymouth, Devonport and Stonehouse Branch of this Society had a most enjoyable and interesting excursion to St. German's Church on the 5th inst. Mr. H. G. Luff, the Architect for the recent restoration, conducted the party and explained that the Church was named after St. Germanus, Bishop of Auxerre, who came across in 429. The Church, which was the seat of the Bishopric of Cornwall from 936 to 1049, was dedicated in 1261, and is said to contain more remains of Roman and Saxon Architecture than any other Church in England. It has a fine west doorway with a splay of 17 feet, and an arch containing seven carved mouldings. The quaint and very early miserere, the Monument to the Hon. Granville C. C. Eliot, who was killed at the battle of Inkerman, November 5th, 1854, and the new Pulpit, Screen and Choir Stalls, which contain some fine carvings by Messrs. Harry Hems and Son, of Exeter, and the "wagon" roof, with its carved bosses, proved of much interest. The next excursion will be held at Truro on Saturday, the 26th inst.

Northern Architectural Association.—With a view to encouraging the students (and associates not in practice, nor yet 25 years of age) to prepare themselves for the R.I.B.A. Examinations, this Association again offers a 1st prize of £2 2s., and a 2nd of £1 1s., for the best set of Drawings, or "Testimonies of Study," as required by the R.I.B.A., to be submitted for their final examination. Similar prizes will also again be given for the probationary work of the Intermediate Examination. All particulars as to the R.I.B.A. requirements may be obtained from the Hon. Sec., or from the Institute Kalendar. The Drawings are to be delivered to the Hon. Sec., Mr. Arthur B. Plummer, not later than 11 a.m. on the 27th February, 1897 (under motto).

IN the Arboretum at Kew the great Flagstaff is the second of two spars which were presented to the Royal Gardens by Mr. Edward Stamp, of the firm of Messrs. Anderson, Anderson, and Co. The first was from British Columbia, and was 118 feet in length. It was broken in the course of erection in 1859. The existing spar came from Vancouver's Island, and is 159 feet in length. It was erected in 1861, and is believed to be the tallest spar in England. The age of the tree from which it was cut was about 250 years, and its total height 180 feet.

THE great catalogue of Cuneiform Tablets in the British Museum has just been completed. It consists of eight large quarto volumes, and gives a complete list of some thousands of tablets which are preserved in our national collection. The most important collection is the so-called Kouyunjik, which was discovered in the ruins of Nineveh in the palace of King Assur-bani-Pal. There is also a large collection which was made by George Smith, now deposited in the British Museum, and also a large number of inscriptions which were discovered and brought to England by Mr. Hormuzd Rassam. The catalogue contains accurate information concerning each tablet, together with its size and other useful information.

Correspondence.

"A NEAR NEIGHBOUR AND A READER FROM THE FIRST."

I note your communication, and I also note that you are anonymous. The information you refer to was sent by "a correspondent" who is not only competent to speak with authority upon the subject, but has only returned within the past fortnight from Holland. If, as a proof of your "bona fide" you will send me your name, I shall have no objection to informing you the name of my "correspondent." Having been a "reader from the first" you must be aware that it is not our custom to attach the author's name to small paragraphs.—ED.

THE ARCHITECTURE AND BUILDINGS OF CHINA.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—Those who have read the article under this heading in your issue of August 19th will be interested in what the late Professor Zerffi said of the Chinese:—"They have produced an art different from any other, and it always will be different. What they may, in the future, copy from other races will always be translated into Chinese. The Chinaman when he builds a bridge, builds it crooked, so that you cannot see where you are going, and thus meet with surprise on the way."

Yours, &c.,
STUDENT.

FARM STREET CHURCH.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—To your notice of the Farm Street Church I should like to supply one omission—the name of the Architect, Joseph John Scoles. Owing to difficulties connected with the site, which was only obtained in portions, the erection covered a long space of time; indeed, I pretty well served my apprenticeship upon it, subsequently acting as clerk of the works. Knowing, therefore, so well the difficulties which had to be surmounted I feel that my old master's memory does not deserve to be slighted in connection with so important a work.

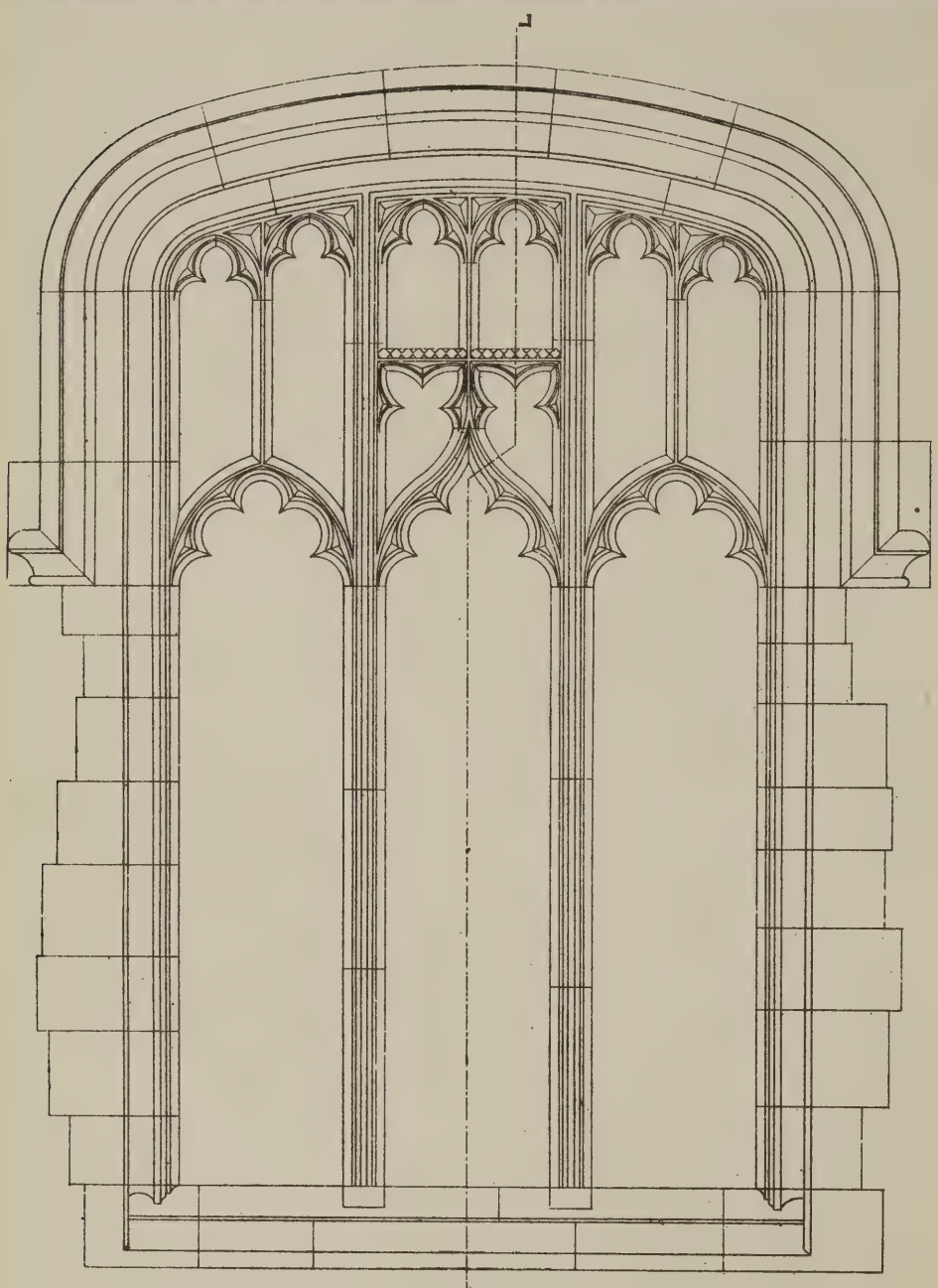
Yours, &c.,
S. J. NICHOLL.

THE Glasgow Corporation Tramway Committee recommend that the Tramway Manager and Engineer should be sent to America to make further inquiries about Electric Motors. The Corporation have purchased the Govan and Ibrox Tramway for £7,500.

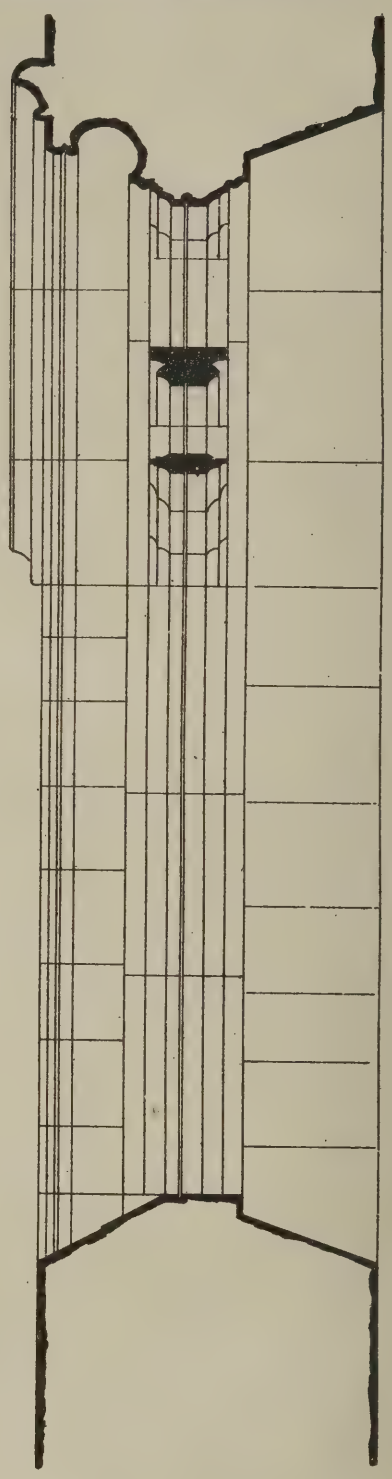
As some men were removing the stones from a quarry between Lynton and Minehead for roadmaking they came upon the end of a stone coffin, and saw inside a skull and some bones. The coffin is made of unworked slabs of stone about 1¼ inches thick, varying in size from 12 to 9 inches wide, some of them 2 feet long, very similar in character to the wider ones lately exposed on Barry Island. The bottom of the grave is 4 feet 6 inches from the top of the heather-covered soil. The total length of the grave is 3 feet 4 inches long, width 20 inches, and height 14 inches. A pitcher was also found in the coffin.

THE works of the Dublin Main Drainage Scheme on the northern side of the river are proceeding satisfactorily, and at the present rate of progress they will be considerably advanced before the close of the present month. The men employed are working steadily up to Butt Bridge, and from Eden Quay at the corner of Sackville Street onwards along the Quay to a depth of something like 10 ft. has been excavated, this being piled with timber on each side. A short railway line, sufficient for present requirements, has been laid down along Eden Quay, and this gives the necessary facilities for the travelling of a couple of steam engines which are engaged in drawing up the excavated soil and in pumping the water from the deep cutting, which is shot into the Liffey. The quantity of water met with here is very considerable.

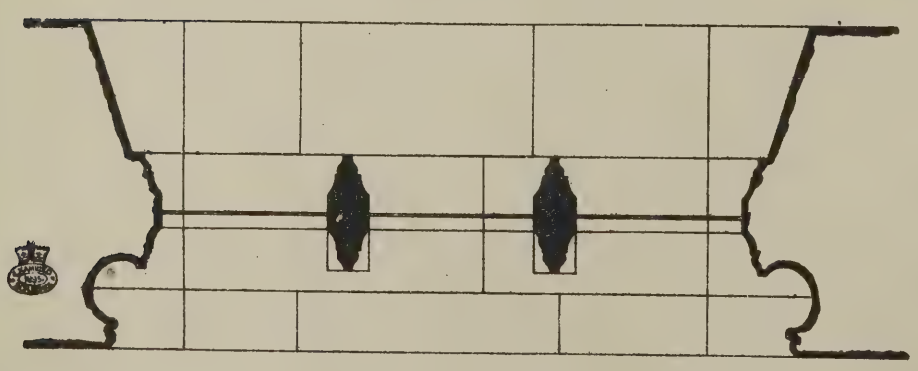
WINDOW FROM SOUTH AISLE + CARTMEL PRIORY CHURCH.



ELEVATION



SECTION

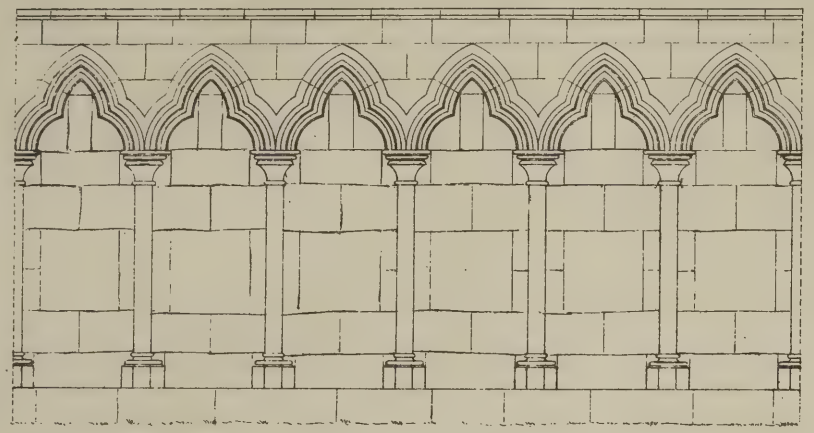


PLAN

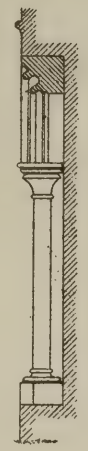
COLLINGHARMER & HARLEY 33 TO 44 COWPER ST FINSBURY E.C

MEASURED AND DRAWN BY HORACE E. PRIESTLEY.

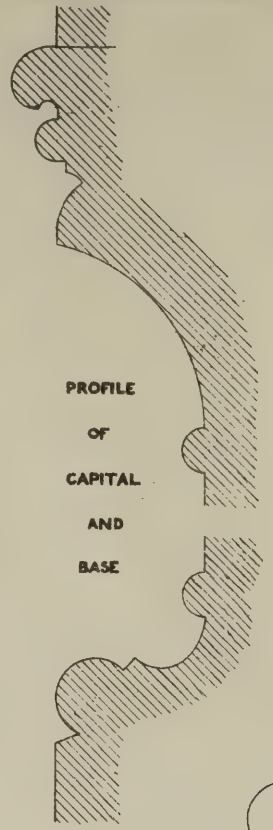
EARLY ENGLISH ARCADE • NINE ALTERS, FOUNTAINS ABBEY • YORKSHIRE.

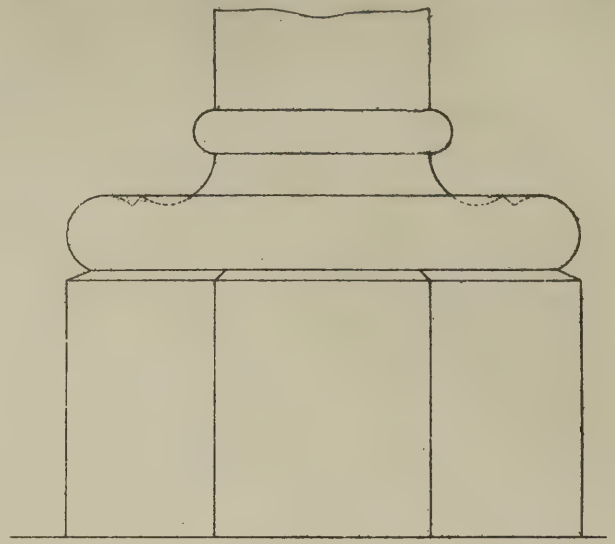


ELEVATION



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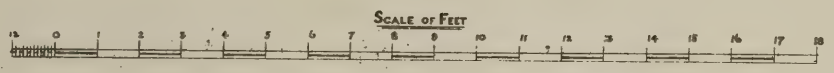


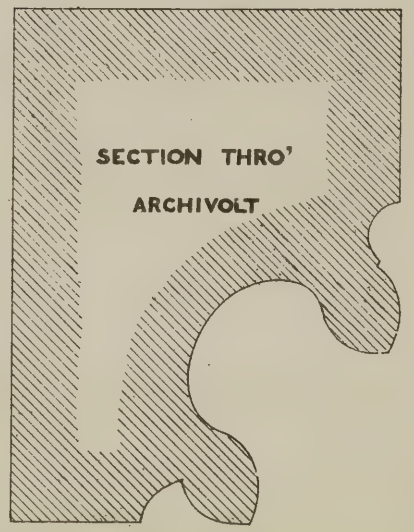


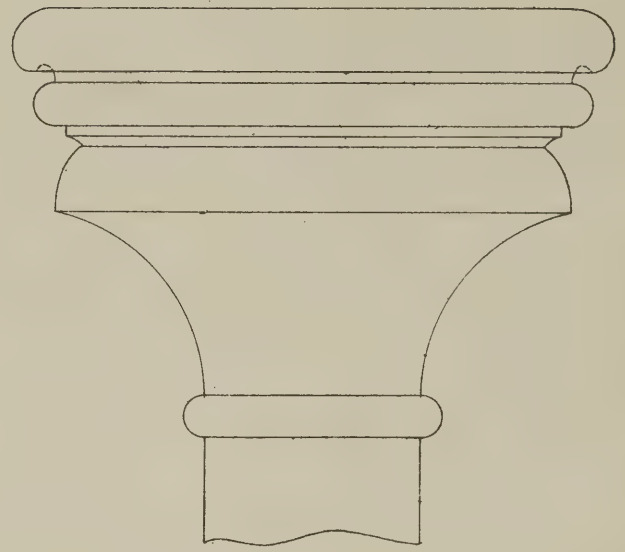
DETAILS OF CAPITAL AND BASE



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The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. IV., No. 85. **Wed., September 23, 1896.**

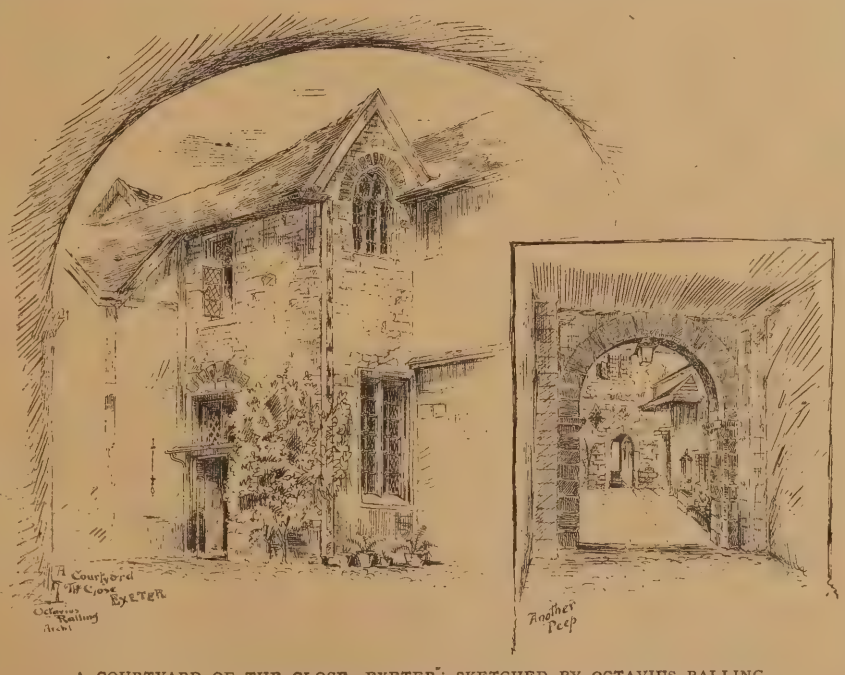
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"Architectural Gingerbread." In one of the current American Magazines with an English edition—we refer to "Scribner's"—a very trenchant and slashing article on "Perverted Standards of Art" is to be found. Particularly does the writer fall foul of the Architectural Gingerbread of the day; more especially in regard to its use in gross and gaudy hotels. He says: "The large hotels of the larger cities are a tremendous power for evil, where they might be missionaries for all that is good in Art. The New Rich from the smaller cities and the well-to-do of the larger towns coming to the Metropolis accept as the Gospel of the best Taste—'Art' they call it—whatever manifestations of apocryphal judgment they see there. A massive 'pile' of Architectural gingerbread is the exterior of equally meaningless frippery. Gaudy ceilings, beds and chairs groaning with embellishments, dining rooms of riotous design, offices of divers marbles and overmuch gilt, parlours of oppressive elegance—these are set up at once as the ideals of Beauty, the summit of good Art. When the pilgrim goes back home he carries perverted standards that will prove a huge impediment to the judgment of many a later generation." To all save the Writer's final contention we agree. The *blasé* hotel with its infernal cornice and lintel in stucco; its brassy glare within, the raw Revolution of primal colours upon the walls and the whole impertinent suggestion of Art, does impress the New Rich, is calculated so to do, and is, in a way, the reflection of monied vulgarity itself. The tendency to gild and gaud is becoming more and more extreme; the Tariff goes up accordingly, and where the Public once paid "Three and Six" for its comfortable dinner, it now pays "Five Shillings, without Wine," and is luckier than it deserves to be, or Colour Blind, if it escapes without a headache. The old somnolence of the Inn is gone; the dark mahogany in fashion of Chippendale; the tall ale-glasses, like Lombardy poplars, on the table; the winking candles in Sheffield Plate, of the days when they hammered the silver on: now we are so electro-plated—Electric-Plated, New-Rich would say. The atmosphere of Johnson and Goldsmith has evaporated from the taverns, and in their place we get gilt by the gallon, questionably Indian Ceilings in an English blinking fog and Arabesque fire-places where the faggot and the fire-dogs should be. It is a pitiable change, in itself, and a dominant indication of the barbaric termination to an opulent century. Hotel after hotel is springing up, a fungus growth, not only in our cities, but in those sequestered places where "God's signet is set on English ground." We know many such debased hostelries; the bedaubed "May Good Digestion Wait Upon Appetite and Health on Both," the meritorious Minstrels' Gallery above, the violent stained glass of the stairway windows; the disgusting sense of plush; the shadowless lizard gaze of the electric lamps; the thin-cased iron stanchions and columns, deluding the New Rich into remembering such a place (mentioned in school books) as Carraros; the shouting walls and reverberating ceilings; does the British Public really take its "comfort in an Inn"?



A COURTYARD OF THE CLOSE, EXETER: SKETCHED BY OCTAVIUS RALLING.

More Iconoclasm. The news that the War Office is contemplating the abolition of Chelsea Hospital and the Duke of York's School and the sale of the site for building purposes, has caused the Secretary of the Metropolitan Public Gardens Association to vigorously protest. The Hospital, which is the chief among the many historic monuments of Chelsea, was founded in the reign of Charles II. as a home for old and disabled soldiers of the British army; while the Duke of York's Royal Military School, which lies not far from the Hospital, was established by Frederick, Duke of York, for the education of children connected with the army. The Hospital was built between 1682 and 1690 by Sir Christopher Wren, and it is, indeed, said by one

authority that Wren was "not merely its Architect, but the contriver of its laws, regulations, and whole internal economy, which to this day are esteemed a model for similar establishments." Another interesting feature about the Hospital is that it occupies part of the site of King James's curious "College for Religious Controversy," incorporated in 1610 "to this intent, that learned men might there have maintenance to annswere all the adversaries of religion." Only one wing of the projected building was ever erected. It was used as a prison during the Civil War, given to the Royal Society after the Restoration, and finally repurchased and pulled down when the present Military Hospital was established. The Hospital estate comprises some sixty-six acres, and the public enjoy "what is practically a right" of using a considerable part of the gardens. The Secretary of the Association submits, therefore, that it is in duty bound to do everything in its power to prevent the destruction of this valuable open space. But he also objects to the abolition of the threatened Institutions on other grounds. He supposes that the promoters of the scheme will say that by pulling the present buildings down and selling the site the money realised will, when doled out in pensions, benefit a larger number of people than can be provided for within its walls. He doubts, however—and many people will doubt with him—whether the pensioners of the Hospital would be "half so happy or well cared for if in their old age they had to shift for themselves on a small money pension, instead of spending their last days in dignified comfort and repose in buildings suitable for the purpose and in the congenial society of those who have all fought life's battle on much the same lines."

KILDARE CATHEDRAL.

Early History and Restoration.

NOTHING in Ireland is more singular than the comparatively modern character of the Churches. One sees none of those old parish Churches, as in England, with their walls covered with the names and virtues of those who for hundreds of years have been quietly sleeping beneath and around. The reason for the contrast is not far to seek. Since the time when the iron hammer of Old Rome welded into one concrete whole the petty provinces of Britain, the tradition and impress of a central government, and of a settled order have made themselves felt even amidst the fierce struggles of competing races, and the jealous feuds of rival chiefs. Hence it came that, shielded by a strong and recognised central power, and sanctified by prescription, the institutions of England acquired that permanence and stability which are the basis of national greatness, and buildings founded by the pious benefactions of individuals, or by the generous offerings of congregations, were left unaffected even by national convulsions. The only periods in which this continuity was affected were those of Henry VIII. and the Puritans. The former was marked by the destruction of most of the Abbeys and monastic foundations, whilst the Churches unattached to them were left intact. The latter was too brief to affect the great majority of the Cathedrals and Parochial Churches. And so, except for the inevitable ravages of time, the Churches of England present to-day the same air of restful calm and hoary tradition as they did to our forefathers. Ireland, on the other hand, never enjoyed the benefits of a strong central government. Even after the introduction of Christianity its message of peace and amity was but feebly responded to by those whose greed of power or racial hate impelled them to raid or outrage. For long centuries these conflicts were carried on even under the very shadow and citadel of English power. The earlier Christian edifices either perished at the hands of the ruthless Norsemen or fed the torch of semi-barbarous tribesmen in their periodic forays in search of prey or plunder. This accounts in a large measure for the

Poverty of the Architecture

and crudeness of design exhibited by most of the Churches founded during the three centuries which preceded the establishment of a settled government and the spread of principles of toleration and enlightenment. Few cared to expend labour and treasure in beginning to build Churches which the vicissitudes of the times might hand over to their hereditary foes or reduce to the condition of unfinished ruins. Most of the Cathedrals in the Ireland of to-day are either entirely modern or have come down to us in whole or in part from an age when the freshness and purity of early faith were not yet tainted with tribal jealousies or marred by sectarian hate. Amongst these latter there is one which, in its origin and history, embodies traditions and memories coeval with the introduction of Christianity into Ireland—Kildare, *i.e.*, the Church of the oak, founded by St. Brigid, of 1,400 years ago. We have very little information as to the materials or construction of the Church founded by St. Brigid. It probably differed but little from similar structures of that age, being built mostly of the wood which abounded in its neighbourhood. For 300 years the history of the Church and See of Kildare presents no marked or striking incident. It was an age in which Celtic piety and learning reached their highest development. The humble Church erected by Brigid and the town which grew up around it had frequently been subjected to the vicissitudes of fire and foray, but as often as they were damaged or destroyed they were restored or rebuilt. The accurate and learned Cogitosus, who wrote about 817 A.D., gives us an outline picture of the Cathedral of Kildare

As it then Existed.

In shape it was oblong rather than cruciform, being divided laterally and longitudinally into three parts by two partitions, or by a kind of ornamented screen and one partition. The Sanctuary enclosed between the screen and the east end was entered by two doors, one on the right for the Bishops and Clergy, and the other on the left for the Abbess and her household. The western portion of the Church was divided longitudinally into two parts, and was entered by doors on the north and south sides for the respective use of the male and female worshippers. On the north side of the Cathedral was probably situated the ancient Fire-house of St. Brigid, in which the sacred fire is said to have been kept alive for long centuries. All previous calamities which the Church underwent were, however, as nothing compared with those consequent on the Danish invasion. These fierce devotees of the gloomy faith of Thor and Odin, attracted doubtless by the report of accumulated treasures, as well as by the defenceless surroundings of the place, swept down in irresistible fury from their neighbouring settlement of Dublin, and in A.D. 835-6 plundered and partially destroyed the Church and its surroundings. Amongst other spoils they carried off the magnificent shrines of St. Brigid and St. Conlaeth, which were placed beside the Altar under crowns of gold. The remains of St. Brigid, which rested under her shrine, were said to have been removed for greater safety to Downpatrick, where they remained until the reign of Elizabeth, when to escape destruction, the head of the saint was carried off by those who reverenced her memory to Neustadt, in Austria. From thence the Jesuits removed it, by permission of the Emperor, to their Church at Lisbon. The history of the Church and Abbey during the next 200 years was one of unparelleled disaster. They were plundered at least fifteen times by the Danes. The perishable materials of which the buildings were constructed made them an easy prey to fire, and during the same 200 years they were seven times the prey of the flames. No sooner were the buildings destroyed than the work of reconstruction was entered on and successfully accomplished. In 1223 was consecrated the first Anglo-Norman Bishop, Ralph of Bristol, the forty-sixth in succession from St. Conlaeth. During the next 400 years the Cathedral and its surroundings were taken and retaken times without number by Irish or English, and on each occasion they suffered either in defence or assault. Ralph rebuilt the Cathedral in stone, but in the reign of Henry VII. it had again become a ruin, when it was restored by Bishop Lane; but the restored Cathedral had little of that stately and suggested solemnity of style which mark the Church

Architecture of the Seventh Henry.

During the latter half of the sixteenth century the Cathedral—or what was left of it—was frequently plundered by the revolted Irish. Sallying down from their mountain fastness in Wicklow, or issuing from their inaccessible retreats in the bogs and marshes of Ossory and Allen, they took summary vengeance on the clerical representatives of English power who held the See and parishes of Kildare. In the great rebellion of 1641 the Irish army, under Lord Castlehaven, directed the fire of their artillery on the Cathedral, which they afterwards occupied and plundered. In 1647 it was recovered by the Parliamentary forces, but having been recaptured by the Irish, it was finally taken from them by the great Duke of Ormonde. The building, already sorely damaged, could hardly be expected to survive so many sieges and assaults. At and after the Restoration the whole fabric, with the exception of the Choir was in ruins. The Cathedral, after the English occupation, like some of the other Irish Cathedrals, was as much a fortress as a temple. Its walls were immensely thick and surrounded by parapets. The building was sufficiently large to accommodate the inhabitants of the town, and being accessible only by small doors it was available for defensive purposes in the absence of any other fortress. The last restoration before that now completed was carried out by Bishop Moreton in 1683. This restoration, however, only affected the Choir, and the work of decay was allowed to progress in the Nave and Transepts. Hewetson, the friend of Wilson, afterwards Bishop of Sodor and Man, gives a graphic account of the consecration of the Choir in 1686. The subsequent history of the Cathedral does not present any points of special interest. During the eighteenth century the condition of the Anglican Communion was one of slumberous inaction. Churches which at the beginning of that century were more or less dilapidated were at the end of it shapeless ruins, and Kildare Cathedral furnished no exception. In 1870 the Cathedral was a mere ruin, services being held with difficulty in the Choir. A deputation of the parishioners waited upon the Dean and Chapter to ask their aid in restoring the Church. The deputation succeeded in securing the preparation of a report on the state of the Cathedral by the late Mr. Street, who was requested to prepare it by the late Archbishop Trench and by the Dean and Chapter. That report was, as might be expected, able and exhaustive, but it erred, as many of such documents do, in underestimating the cost of restoration. This it placed at £5,000, but even twice this amount has been already expended, and a further sum of £1,500 is urgently necessary.

THE Dock Road and Eastgate Schools in St. John's Parish, Worksop, are to be enlarged at a cost of from £800 to £900.

THE new Technical School for Women, which has been erected under the auspices of the Surrey County Council, in Hubert Road, South Wimbledon, and is to be opened in a few days, is a red brick structure, built at a total cost of £2,500. It consists of two floors. The largest room will be set apart for recreative purposes, and is to contain a billiard table. Another is to be fitted up as a laundry. A spacious room will be devoted to the teaching of cooking and dress-cutting.

THE Ecclesiastical Art Exhibition is always one of the most interesting features of the Church Congress. This year there is reason to hope that some exhibits of peculiar interest will be available. Efforts are being made to collect specimens of the pewter communion vessels, of which a considerable number were known once to exist in Shropshire and neighbouring counties. Communion vessels of historic interest from their associations are also to be collected.

NOTICE.

In October will be issued from the Office of the Builders' Journal

THE ARCHITECTURAL REVIEW,

a Monthly Magazine for the Architect, Artist, Designer and Craftsman.

The Magazine will consist of 56 pages of Letterpress with numerous Illustrations,

THE PRICE WILL BE SIXPENCE.

Amongst the distinguished contributors to the first and early numbers will be :—

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Specimen Copies may be had on application to the Publisher

TALBOT HOUSE,
ARUNDEL STREET, STRAND.

STROLLING SKETCHES.

No. II.

EXETER AND ITS CATHEDRAL.

(Concluded).

ILLUSTRATED BY OCTAVIUS RALLING, S. NEWCOMBE, AND G. J. F. HOOKWAY.



IN the previous article attention was devoted principally to an outline historically of the City of Exeter, and to the Cathedral which forms its principal Architectural monument. We now propose to look more closely at some of the civic and domestic buildings which have survived the destroying hand of time, and the still more disastrous assault of the modern improvement fiend, to say nothing of the fires which, up to a decade ago, made Exeter their happy hunting ground, earning, for a time at least, the name of being the most fiery city of the times.

The main thoroughfares ran from west to east, and from north to south, forming a cross, and until 1770, the ancient enriched Carfax at the *Quatre Voies*, by corruption Carfoix or Carfax, stood at the point where these roads met and crossed, marking the centre of the city. One of these, the High Street, is very quaint and picturesque, and, although a large number of the old houses have given place to those which were modern seventy years ago, still there are some few half-timbered mediæval fronts left, and the more modern are so varied in design that picturesqueness is not destroyed but is emphasised by the narrow width and the gentle curves of the street which prevents anything in the shape of monotony.



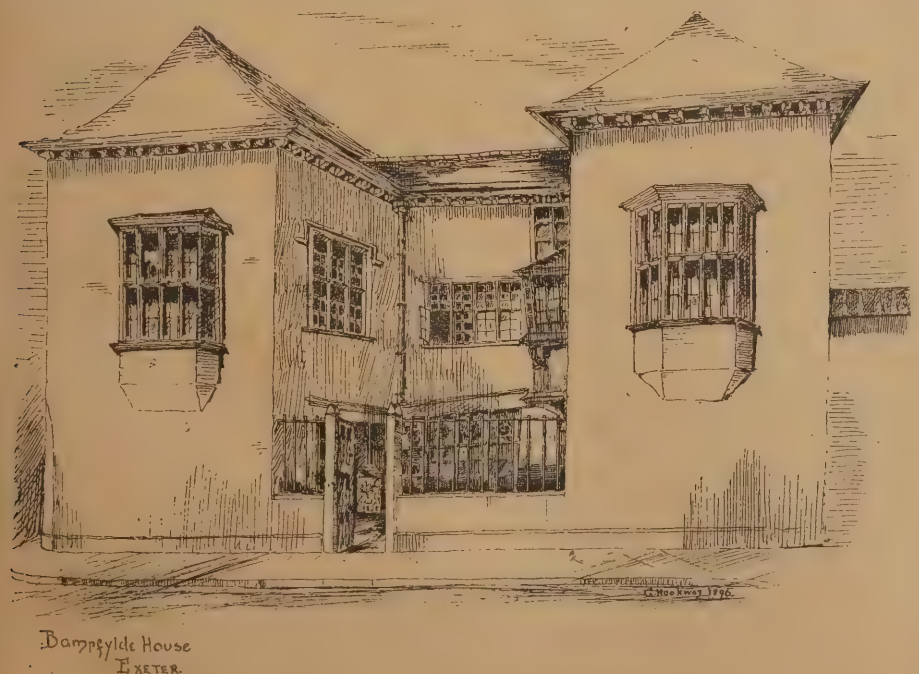
SKETCHED BY OCTAVIUS RALLING.

The most striking feature is the ancient front of the Guildhall, which dates from 1593, and is carried over the pathway upon arches supported on granite columns; the upper work is a great mixture, English mullioned windows between Italian columns, and a vast amount of carving. The stone used was of a soft description, probably Beer stone, and has much decayed, so that the detail is not easy to follow. The whole is blackened by age, and is only held together by iron straps and bolts. It is greatly venerated by the citizens, and the city would undoubtedly lose much of its character should it be destroyed. This front forms a screen or portico to a more ancient and purer Architectural building in the rear, namely, the Council Chamber, measuring 62 ft. by 25 ft. and 37 ft. to the roof. Unfortunately, this is so hemmed in by houses that the exterior is completely hidden from view. The interior is, however, very dignified, and although it was restored some five or six years ago, and new aldermanic and councillor's benches were erected, the work was most skilfully done, and all the details of interest most carefully preserved. The high dado is of oak panelwork, in the frieze of which are shields containing the arms of the various city companies, and the mayors of the city emblazoned in colour. And above the dado hang valuable portraits of mayors and other persons connected with the city, including the Princess Henrietta, Duchess of Orleans, who was born at Bedford House, in the city, during the troublous times preceding the Commonwealth, and which was presented to the city by Charles II. and painted by Sir Peter Lely. Another of Lely's is a portrait of General Monk, and others are Charles Pratt, afterwards Lord Camden, and George II., both by Hudson; Sir Thomas White, founder of St. John's College, Oxford; John Hoker, Chamberlain and Historian of Exeter, and many others of lesser note.

The city muniments are of the greatest interest, the series of Royal Charters being almost unique, and commence with that of Henry II., and coming down to 1770. The records of the city commence in the reign of Edward I.

The regalia is most valuable, with its sword and cap of maintenance; its silver maces, loving cups, and the plate used at the Mayoral feasts, and the city seals, are highly interesting and valuable.

The chief military memorial, known as Rougemont Castle, from its being situated on the Red Hill, the highest land in the city, and its north-east corner, after having withstood siege after siege and had its walls battered by rams, shattered by mines, and weakened by the wear of generations, still retained much of its massive strength, and its donjon and sally ports fairly



BAMPFYLDE HOUSE, EXETER: SKETCHED BY G. J. F. HOOKWAY.

complete; it remained for the hand of man, in the shape of the county authorities, to complete the ruin and sweep away all that remained of the chief defence, and at the same time, upon occasions, the menace of the city.

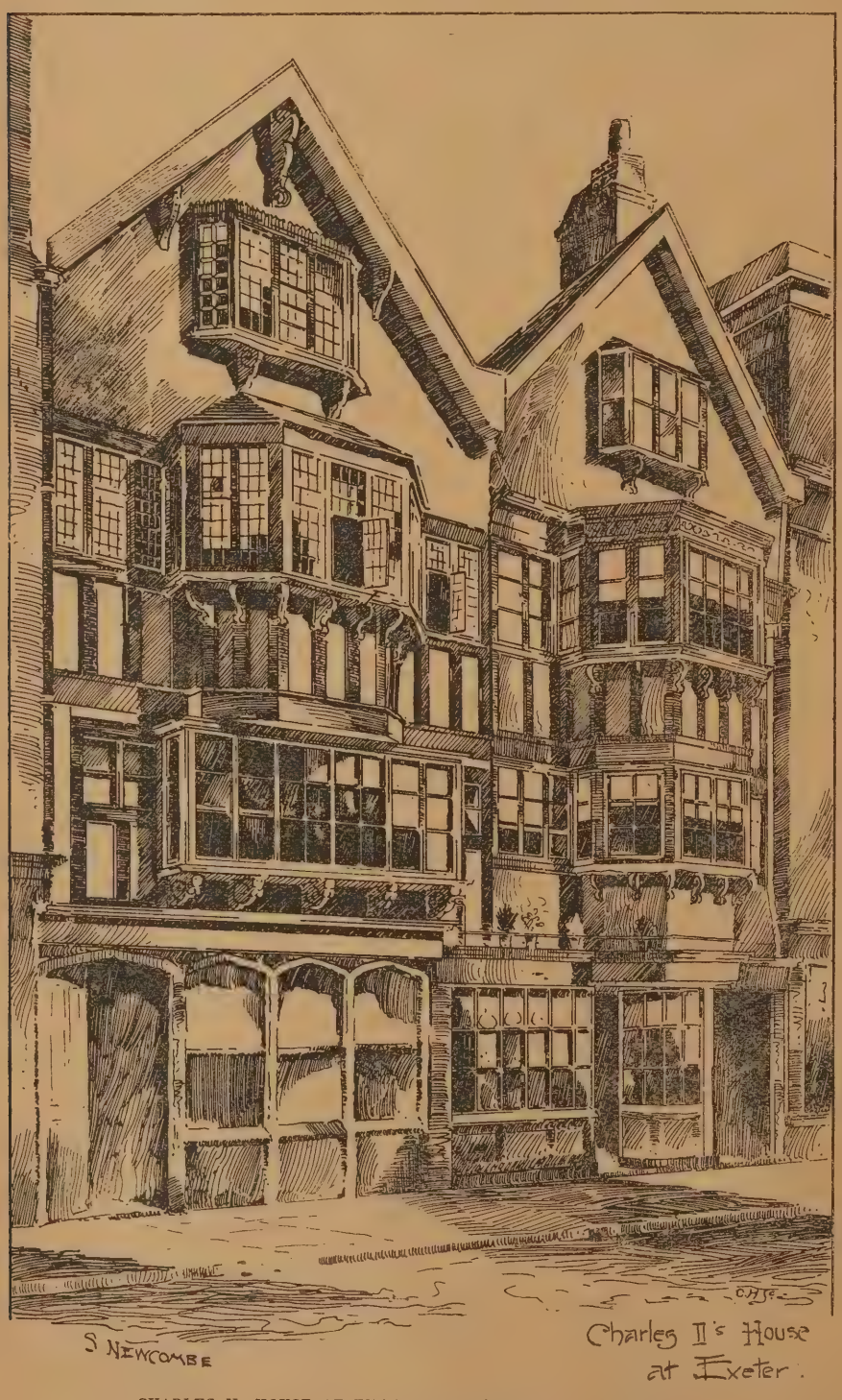
The Castle site was selected by the Conqueror with the intention of overawing the citizens, and the superintendence was assigned to Baldwin de Brioniis, and the custody of the Castle with the office of Sheriff of Devon was granted him. The Castle is still the property of the county, and has been from that time, and not under the jurisdiction of the city authorities.

There is no record of the character of the Castle buildings, and its strength can only be inferred from what it withstood, and from the massiveness of its gateway, which, fortunately, has been preserved in some amount of completeness. The principal building now within the Castle walls is the County Sessions House, about as inappropriate in Architectural character as can well be imagined, and it was to accommodate this abortion that the more ancient buildings were pulled down, to the everlasting disgrace of the county.

The walls on the east, west, and north side are in fair condition, and a bastion Tower and gate remain, as well as a square angle Tower, both facing towards Northernhay. Sketches of these are given.

The Churches within the city boundary are, as a rule, insignificant, their chief peculiarity being that they are all yardless and abutting upon the thoroughfares, shoulder to shoulder with houses and shops, and in some cases the strong wall of the Tower is made the back or side wall of an enterprising tradesman's house, and in one a 3 ft. entry is the right of way and all that marks the existence of the Church from the High Street.

There is no particularly interesting work in them either, if we except St. Mary Arches, with its double arcade of Norman work and the ingenious way in which the levels are treated at St Mary Steps, which is built on the side of a steep hill. Two at least of these, St. Martin's and All Hallows', stand at the corner, and their lives have been threatened time after time for the purposes of thoroughfare widening. They have weathered the assaults, however, and the present generation will have them with them at any rate, whatever fate may be in store for them in the future.



CHARLES II. HOUSE AT EXETER: SKETCHED BY S. NEWCOMBE.

The Churches which have been built within the last twenty years are, however, dignified, particularly that erected by Mr. Gibbs and dedicated to St. Michael and All Angels, situated on Mount Dinham, which is a lofty mount with well nigh perpendicular sides, facing the river, and commanding excellent views of the valley of the Exe. On this mount, too, are about forty houses, erected and maintained for the benefit of decayed tradesmen with small incomes by one of the benefactors of the city, Mr. John Dinham. Exeter is peculiarly well off in the matter of Almshouses; the most ancient and picturesque of these, quadrangular on plan, situated in Magdalen Street, and called Wynard's Almshouses, is the constant resort of Artists and lovers of the picturesque.

The Bridge which crosses the Exe is of very good form. It was erected in 1777 and 1778, and designed by Mr. Goodwin, who at the same time continued a Viaduct on stone arches spanning Exe Island, and reducing the gradient of Fore Street Hill, which hitherto had been perilously steep. This Bridge was not on the site of the old, but considerably to the north of it, thus avoiding the circuitous route down Fore Street, through West Gate, and by St. Edmund's Church, and enabling the new thoroughfare to be continued in a direct line from High Street, on the Exeter side, to Cowick Street, on the county side of the river. The new street was called New Bridge Street and Fore Street.

The streets in the neighbourhood of Westgate, and on the south side of Fore Street, and locally known as the West Quarter, are now the least desirable in the city, steep and ill paved, and decorated by clothes lines across from upper window to upper window. They are, however, exceedingly picturesque, and the houses, many of them, show signs of having been the residences of merchants and the well-to-do classes. Stepcote Hill still has the old steps which gave it its name.

Exeter was one of the few cities allowed to produce the coin of the realm, and there is a thoroughfare bearing the name of the Mint.

Of the modern streets, Queen Street is of by far the greatest importance from an Architectural point of view. Therein is the Higher Market, a Classic façade of some dignity, and called the Higher Market to distinguish it from that in Fore Street, which was erected in 1836, from the designs of Mr. Charles Fowler, of Bristol, while the Higher Market was by Mr Geo. Dymond, also of Bristol.

In Queen Street, also, is the Albert Memorial Museum and Free Library, erected by public subscriptions to commemorate Prince Albert. It is of Venetian Gothic style, and from the designs of the late Mr. Hayward, of Exeter. The old Post Office formerly stood in this street, and is also of Classic character, in fact, the whole street partakes more of the Classic Renaissance than any in the city. It is laid out at right angles to the High Street, which makes the turning somewhat awkward, and the traffic is sometimes difficult to regulate in consequence.

The Rougemont Hotel is a lofty building at the corner point in the street which faces the L. & S.W.R. Station, and is a striking feature, rather too lofty, however, as a point of convenience.

North Street, which is the main road leading to the city from Barnstable and the northern part of the county, was another of the ultra steep streets, but in 1831 an iron Bridge was erected to carry the roadway and this effected a marvellous improvement in what hitherto had been a most dangerous declivity.

In this street are some very fine old houses still, but the finest were taken down a few years ago to effect a widening of the street. The timbers of the front generally have, however, been saved by a private individual, and there is the prospect of its being re-erected on a different site some time in the future.

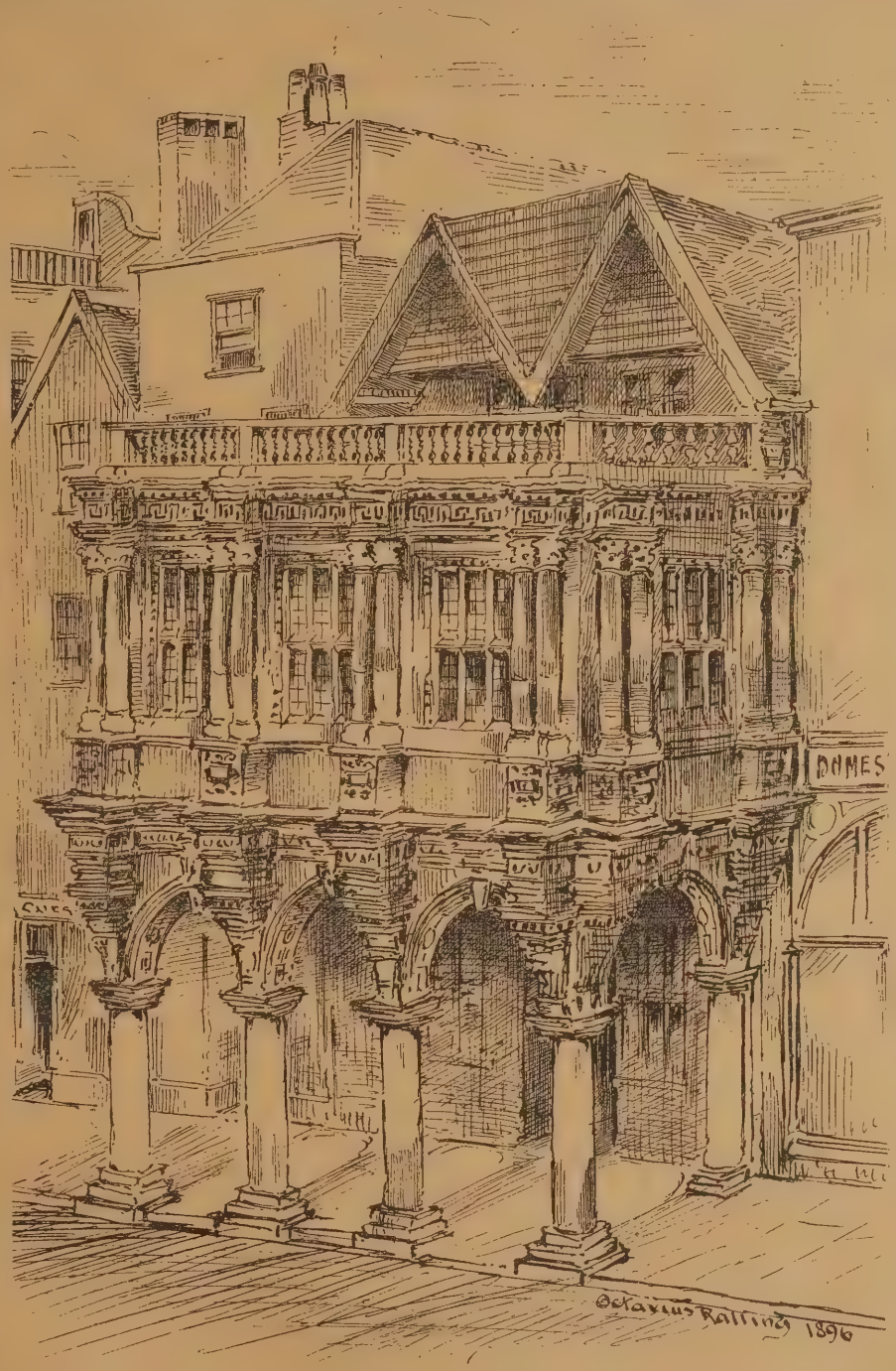
The College Hall, in South Street, built by Bishop Brantingham, is all that remains of the College of the Vicar's Choral of the Cathedral. The interior is very rich in oak furniture. Of the remaining ancient houses, which are dotted about in all parts of the city, there is little of actual history. Charles II.'s house, of which a sketch is given, was traditionally the residence of that monarch when

a prince and practically an exile, and what was his favourite walk towards the country still retains the name of Blackboy Road, the Black Boy being an endearing name presumably from the dark complexion which he is reputed to have had.

The others were, probably, the houses of the lords and gentry who had their town houses in the capital of the West, namely, the Bampfyldes, the ancesters of Lord Poltimore, the Carews, and others. The Earls of Bedford had a fine house and grounds where the Queen of Charles I. was entertained when she fled to the West, and where Princess Henrietta was born. This was sold during the latter portion of the last century, and in 1773 Bedford Circus was built, formerly as residences, but now almost entirely given over to professional men and used as offices.

Of semi public buildings the Workhouse and the Devon and Exeter Hospital are interesting as types of the eighteenth century work.

The Cathedral Close contains some fine old houses. At the corner near St. Martin's Church stands Moll's Coffee House, which boasts of very early history. It is practically in precisely the same condition in which it was when first built, and stands upon the foundation of what was known as the Annuellors' College, the residence of the Annuellors or Chantry Priests, which was closed during the reign of King Edward VI., in 1437-9, and some time in the reign of Queen Elizabeth was pulled down and the present building erected; till recent years, upon a pediment in the upper part of the centre of the house stood the carved royal arms of Elizabeth, bearing the date of 1596, which has led to the presumption that the house itself was used for a club or meeting place for the noblemen and gentry directly associated with the statesmen and government of the realm, many of whom were Devonshire men. Upon the first floor is an ancient oak panelled room, and upon those panels nearest the ceiling are forty-six shields of arms. During the Commonwealth (*i.e.*, A.D. 1649-60), on the introduction of coffee, the building changed hands, and was known as "Mol's Coffee House," and was used as a club to the year 1829.



THE GUILDHALL, EXETER: SKETCHED BY O. RALLING.

The surroundings of Exeter are very charming, the walks by the river and the banks of the canal—which has the reputation of being the first canal cut in England, 1563—are extremely pretty. The junction of the canal and river is at Turf, the Greenwich of Exeter, where Whitebait teas are a time-honoured and popular institution. Of the villages within easy walking distance—Countess Weir holds the palm, and has formed the subject of innumerable pictures, and is a favourite resort of artists. Pinhoe is renowned for the great battle in which the English worsted the Danes in the famous battle of Pinhoe, and the rector still receives the pension of a mark a year granted to the priest of Pinhoe in perpetuity for the services rendered in obtaining arrows for the British Army. Ide, Alphington, the various Clyst villages, Stoke Canon, and others are very picturesque, and have, in many cases, fine Churches.

As a centre, whether for sketching or purely a pleasure holiday, there are few better places. Within easy distance of either the south or north coast, Exmouth, Dawlish, Teignmouth, Torquay, on the one hand, Ilfracombe, Lynton, Lynmouth and Clovelly on the other, with the vast expanses of Dartmoor, and the fringes of Exmoor, as the centre. Of the attractions, there are fishing, shooting, hunting, and sport of all kinds, with a climate, if sometimes relaxing, as equable and health-giving as one could wish to find.

Nothing has been said of the actual living Architecture of the city, but as the capital city it forms the rallying point for a good many Architects, whose practices extend into the county in all directions; and there are some good specimens of modern work in business houses and private dwellings, to say nothing of the Churches which have been built to meet the requirements of the spreading and thickly populated suburbs, which, as a rule, are the work of local men. Exeter is the headquarters of the Devon and Exeter Architectural Society, affiliated to the R.I.B.A.

IT is proposed to restore the parish Church, at Bradford, at a cost of £10,000.

EXTENSIVE improvements are being made by the Great Western Railway Company in connection with Millbay Station, Plymouth.

A NEW Hall attached to the Church of St. Catherine, Brynammam, Carmarthenshire, was opened recently. The Hall has cost £800, and it is intended to spend another £200 on a Library and Reading Room.

IN compliance with the requirements of the Education Department, St. Agatha Schools for girls and infants, attached to St. Peter's Church, London Docks, have been rebuilt at a cost of £5,000.

The Queen is going to expend a considerable sum on improvements at Osborne. Large kitchen gardens are to be formed, and extensive hot-houses are to be built.

THE Mayor of Newcastle's Fund towards the erection of a new Infirmary in that City has now reached a total, in round figures, of £15,000. The Mayor intends to convene a public meeting early in October. The total sum which it is hoped to raise is £60,000.

IT is not generally known that there is in the British Museum of Natural History, a section of the trunk of a large fir tree from British Columbia, the growth rings of which indicate that it was more than 500 years old when it was cut down in 1885.

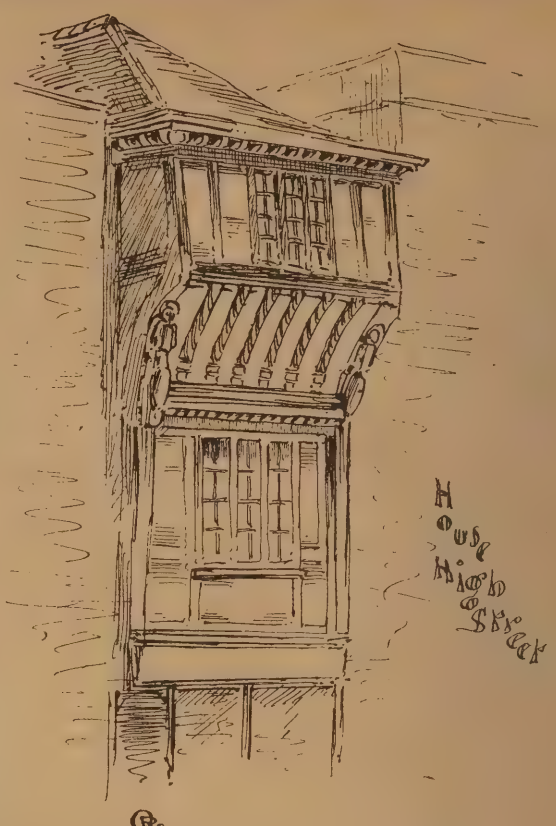
The South Solitary Island lighthouse on the New South Wales coast cost £31,259 to build, exclusive of the lantern equipment. The Marquarie light on the same coast is one of the most powerful in the World, and is visible 25 miles at sea.

AT a recent meeting of the Heywood Town Council, the Water Engineer was instructed to prepare plans and estimates for a new Embankment in connection with the upper storage reservoir at Nayden. Some time ago a portion of the Embankment gave way, and since then the reservoir has been practically empty. It was deemed imprudent to store water in it, and it is from this cause that Heywood has during this summer experienced a scarcity of water.

THE preservation of the remains of the famous wall of Antoninus between the Firths of Clyde and Forth, built in 140 A.D., has been occupying the attention of the National Trust for Places of Historic Interest or Natural Beauty. Communications have passed on the subject between the Trust and Lord Balfour of Burleigh, who has taken considerable interest in the matter, and is visiting the neighbourhood of Falkirk in order to personally examine what remains of the rampart.

EXCAVATIONS AT FURNESS ABBEY.

MR. W. H. ST. JOHN HOPE, M.A., Assistant Secretary of the Society of Antiquaries of London, and a well-known authority on monastic buildings, who has superintended the excavations at Furness Abbey, recently stated that the eastern part was given up to the monks, and on the west was the Private Chapel of the working brothers. The division wall, however, disappeared after the twelfth century. The Church was of later date than the foundation of the Abbey. Originally there was a central Tower, but this gave way to the west Tower, which was not any higher than the remains now show. The monks lived in the Cloister. There was no such thing as the Day Room; the actual Day Room was the Cloister. The centre was always a green glass plot—never a cemetery. The Chapter House was the place where the monks transacted their business. Over it was the Scriptorium, but Mr. Hope discredited the statement that "transcriptions were here made of the most important works of the fathers, classics, and of the principal historical occurrences of the kingdom." The monks of this Abbey did not do much reading, and, therefore, little transcribing. The room over the Chapter House was simply a division of the Dormitory. The room called the Dining Hall was unquestionably not so, but this block was more likely to have been given up to the novices. The only way of ascertaining the locality of the different rooms was by comparing one Monastery with another, and to read the rules of the Order. This was avoided because they were written in Cistercian Latin. Mr. Hope doubted whether the building known as the Abbot's Hall or Lodging was anything of the kind. He rather inclined to think it was the Infirmary, on account of its large dimensions. The Infirmary was not a place set apart entirely for sick persons, but was for the use of retired abbots and sick monks. A Chapel was always attached to this place, and is one of the few parts of the Abbey that has retained its roof. Four hundred cart loads of surface refuse had been removed and the foundations of a building laid bare. This Mr. Hope believed to be the Abbot's Lodging. The abbot was not allowed to have a lodging at all, but was supposed to take his meals and live with the other monks in the Dormitory. But this rule began to be evaded, and by joining the Lodging to the Dormitory the Abbot considered he was sleeping in the Dormitory. Up to the present they had not traced the foundation until it joined the Dormitory, but no doubt they would do so as the work of excavating proceeded. This building was not at all suited for an Infirmary, as suggested by the present plan. It was not built according to the plans of an Infirmary. It was not of any very great length, and consisted chiefly of one block, which had evidently had a nice vaulted roof. There had been windows round the sides, and four doorways. The suggestion that this was the infirmary, and that the sick monks used to put their arms through these openings in order to have their pulses felt "would not work" at all, inasmuch as no monk had an arm four feet long—the thickness of the walls. Finding, no doubt, that the house was too small for the purpose it was built, they made a curious alteration. The structure then consisted of a lower vaulted Hall, with several rooms above it. The upper part of the building was pulled down, and the second floor made double its former dimensions by carrying it over a series of arches. At the back the floor arched over into the rock behind. There were appearances of a small spiral staircase, which was supposed to have led from one floor to another, but the abbot probably had access to the upper floor by a stately staircase from outside, supported on massive mason work. By the published plans they knew nothing of these apartments. The excavations showed them, and showed how they had been enlarged. But they would have to extend the digging and do a great deal more than had been done. A little apart from these foundation walls appear traces of what may have been a stable and a kitchen, where there is unmistakable evidence of a fireplace.



EXETER: SKETCHED BY O. RALLING.



SKETCHED BY OCTAVIUS RALLING.

THE Ayr Model Lodging House, the erection of which is to begin immediately, is to cost about £10,000.

THE late Lord Leighton's rare collection of drawings and studies by early Italian masters has been purchased for the Print Room of the British Museum. It includes some very fine works by Andrea del Sarto.

THE mountain railway between Beyrout and Damascus, which necessarily crosses the Lebanon and Anti-Lebanon, is finished. It was begun in 1891. The steep portions are on two systems—the cog-wheel and adhesion. The former covers a much larger section than the latter. Two classes of locomotives, one for cogs and the other for adhesion, are employed. They have been made at Winterthur, and both the plant and design of the railway are Swiss.

THE Northampton Institute that has been set up in Clerkenwell at a cost of something like £100,000 was to have been opened by about this time. It was commenced in the early part of 1893, and much of it has been finished for some time past. But the scheme includes some fine ranges of workshops for technical education, and there was considerable delay in securing the site for this part of the building. Now it is said that wet weather has greatly retarded the contractor's work, and the actual date of opening is still undecided. The Architect is Mr. Chas. Bell.

Bricks and Mortar.

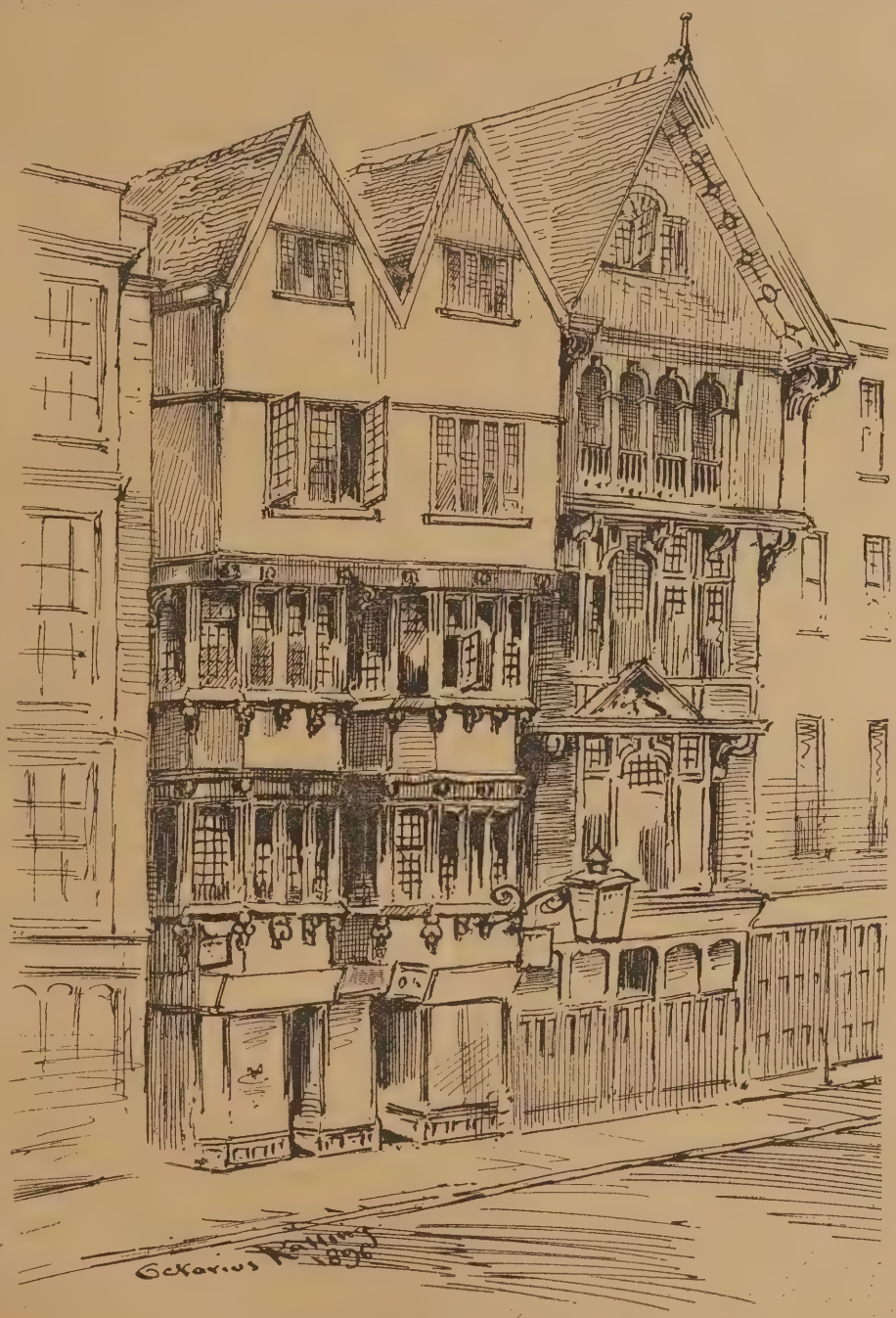
TALBOT HOUSE, ARUNDEL STREET,
September 23rd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

IN his opening lecture to the students of the Glasgow High School Construction Classes, Mr. D. Bennett Dobson illustrated his remarks by reference to numerous diagrams of Cottages, Villas, and Mansions, as well as by a specially-prepared design of a small Science School which admirably showed the application of details. During the last Session visits were made to Somerville Free Church (W. G. Rowan, Architect), Ruchill Hospital (A. B. McDonald), Kelvinside Brick Co., Central Drill Hall (H. K. Bromhead), T. B. Campbell Sanitary Depôt, City Saw Mills, Sanitary Chambers (A. B. McDonald), Savings' Bank (Burnet, Son, and Campbell), Glasgow Art Galleries (Simpson and Allen), Mr. Young's Villa (John Gordon), Langside Free Church (Alex. Skirving). For the Monthly Visits for the incoming Session, 1896-97, the following buildings have been chosen:—Empire Music Hall (Frank Matcham, Architect), Young Men's Christian Association and Bible Training Institute (Clark and Bell), Sanitary Chambers (A. B. McDonald), Broomsloan School, Govan (H. and D. Barclay), Lancashire Insurance Co., Ruchill Hospital (A. B. McDonald), Glasgow Art Galleries (Simpson and Allen). Five students get prizes for last Session's work.

THE Leeds Corporation purposes borrowing the large sum of £270,000 for the purposes of Waterworks, Sewerage, and erection of Baths, and an official enquiry was held last week by the Government Inspector at the Town Hall. Of this sum £150,000 is to be used for reconstructing the Eccup reservoir and the extension of the water mains. The amount required for sewerage purposes is £100,000, and this is to be used for the construction of sewers for the general drainage of the city, and for the half cost of sewering new streets. For the erection of Public Baths at Holbeck and Hunslet, £20,000 is to be spent, under the superintendence of the Architect, Mr. Hanstock, of Leeds. The sites for these Baths have already been purchased, the one in Holbeck Lane costing £1,519, and the other in Joseph Street £1,288.

SOON Clement's Inn, at the junction of Fleet Street and the Strand, will be no more, its place being taken by brand-new offices, and chambers, the property of a limited company. Hundreds of years have passed since an hostelry was first built there for the comfort of pilgrims to the Holy Well of St. Clement. Its sanctity no longer recognised, the well was covered by a pump, and in 1874 was destroyed altogether by being filled up. The site is within the pale of the Law Courts. Clement's was an Inn of Chancery, and received law students more than five hundred years ago. It was sold in 1528 to William Holles, Lord Mayor of London, ancestor of the Earls of Clare and Dukes of Newcastle, whose names are borne by the neighbouring Clare Market, Holles Street, and Newcastle Street.



OLD HOUSES, HIGH STREET, EXETER: SKETCHED BY O. RALLING.

AN exceedingly high scaffolding now mars the stately quadrangle between the Foreign Office and the India Office. It is necessitated by the great enlargements and improvements being carried out in the Library of the latter department. The books were stored and the Reading Room was situate at the very top of the building, and the projected extensions are being made in the form of a new story. Save those immediately connected with the India Office, and a small number whose special studies in Oriental antiquities or literature have secured them the privilege of using the Library, few people are aware what a valuable collection of Eastern manuscripts is there, not to mention the interesting early documents and chronicles relating to the "Gouvenoure and Companie of Merchauntes of London trading to the East Indies," the tercentenary of whose incorporation will soon be celebrated. It is hoped that the actual work of building will be complete in about five or six months, but the rearrangement of the vast collection of books will occupy considerably longer.

CONSIDERABLE interest will doubtless be aroused amongst sanitary inspectors and municipal adminstrators by a novel kind of competition which is to be settled early next year under a scheme for giving effect to a certain provision in the will of the late Sir E. Chadwick, K.C.B., the eminent sanitary reformer, who died in February, 1895. In accordance with the scheme, which was approved by Mr. Justice Chitty, a shield, worth £100, to be called the Chadwick Shield, will be given to the Local Sanitary Authority (presiding over a population of not less than 50,000 persons) which, having adopted the most complete application of the separate system of drainage, shall, during the five years preceding next January, show the best reduction of the death-rate in its district, as indicated by its official statistics.

IN a recent number of the *Academy* an account is given of an interesting stone at Grenloaning, Perthshire. The writer is Mr. E. W. B. Nicholson, of the Bodleian Library, Oxford, author of "Vernacular Inscriptions of the Ancient Kingdom of Alban." His attention had been directed to the stone by Professor Rhys, the great Celtic authority. It stands upon the farm of Townhead, a short distance from Greenloaning Station. In Mr. Nicholson's opinion it is an inscribed Pictish stone, belonging probably to about the tenth century. The inscription, which is partly legible by the naked eye, is in Roman capitals, but of course in old Celtic speech. The interpretation would seem to imply that it was a march-stone, it giving the names of the proprietors on either side of it. The first line is "Quatt's cottage hearthside," *i.e.*, Quatt's freehold; and the second line, which is later in date, "Umchama's new dwelling."

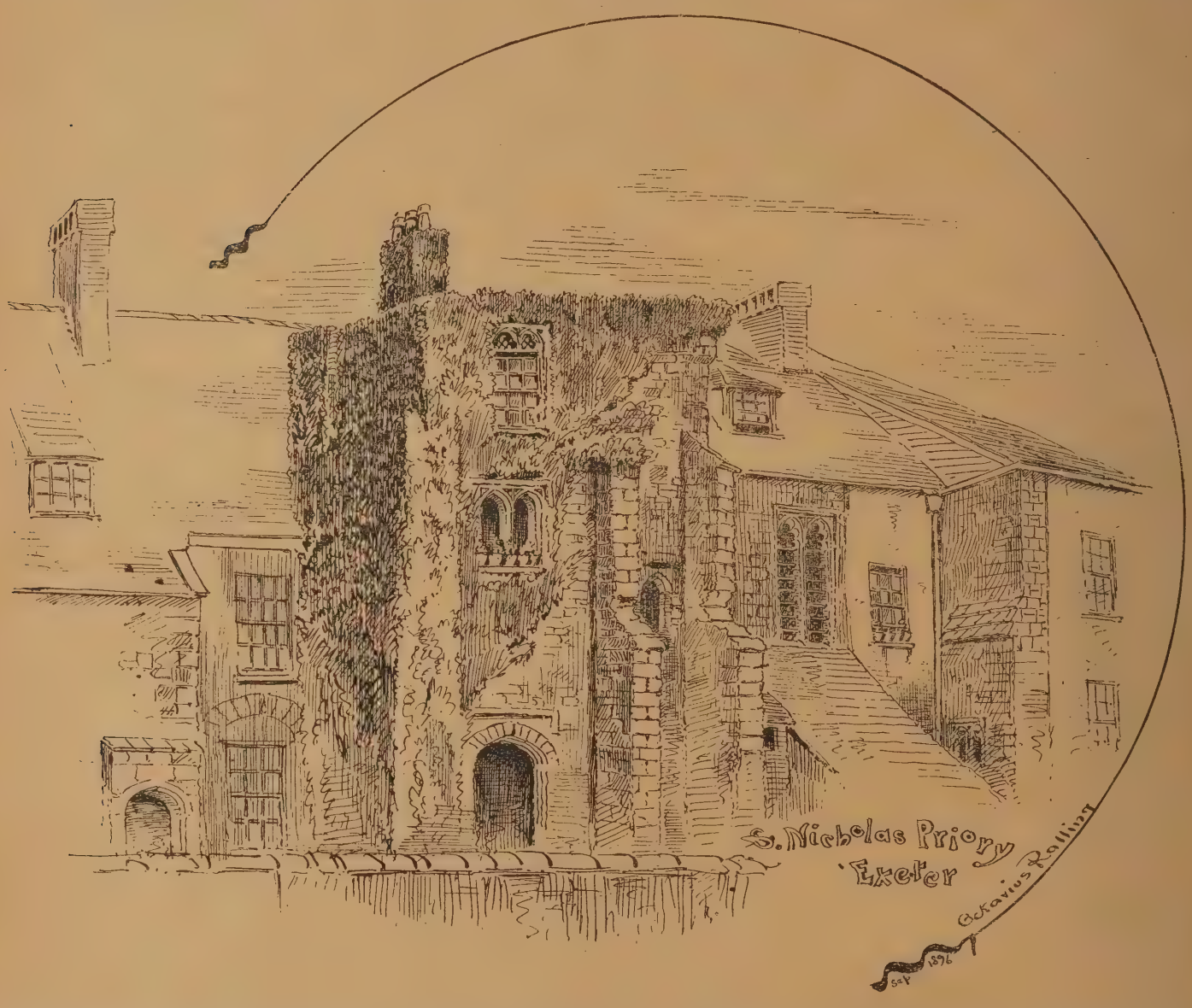
LOOKING to the present congested condition of the traffic in the Strand, and to the possibility of a near future when some relief will be imperative, proposals are made to the County Council from time to time for the construction of subways for pedestrians. The Benchers of the Middle Temple were among the first to take up the matter, and they have recently renewed a proposal originally made as long ago as 1882, for the construction of a subway between the Temple and the Law Courts. The Strand Board of Works has again refused to consider the suggestion unless the public shall have right of access to the passage.

IN the Journal of the Anthropological Institute, Mr. R. M. W. Swan gives an interesting account of the ruined Temples of Mashonaland, which are built in the style of the Zimbabwe ruins, that is to say, in the form of arcs, more or less circular. That at Lundi River is, however, rectangular, and built of granite blocks in level courses. The circumference of it is nearly 170 ft. Between the Lobsani and Lundi rivers, along some 250 miles of road, Mr. Swan visited no fewer than twenty Temples or other ruins of the race who built Zimbabwe, and he thinks the number of ruins between Limpopo and the Zambesi must be very great. These crescent-shaped Temples are, in fact, so numerous in the country that Mr. Swan supposes them to have been wayside shrines rather than Churches.

A SWISS National Exhibition is being held at Geneva. The Swiss have always been famous engineers and mechanicians, and to many visitors this engineering faculty is now being made too much use of in the construction of funicular railways, and the consequent desecration of many of the mountain heights of the country; but the excellence of sculpture and of painting, the beauty of textile and embroidery work, will come as a surprise to many. The president of the Exhibition, M. Turretini, an engineer of world-wide fame, who has, by the utilisation of the water power of the Rhone, enabled Geneva to obtain so complete an electrical installation for motive as well as lighting purposes, has worked hard to achieve success with the Exhibition, and has succeeded. In the Swiss Village the Heimber pottery may be seen; the Tessino workmen make wooden clogs; the silkworm industry of Murano is shown, and also the manufacture of the celebrated Appenzell embroideries. Brienz sends its wood-carvers, and the Oberland its lacemakers. The section devoted to machinery and electricity is one of the most important, no less than 150,000 square feet of floor being devoted to it. The turbines, duplicates of which are used for the generation of electricity by the Rhone water power, are here exhibited, and all descriptions of transport machines, from locomotives, motor carriages, to cycles, as well as the ever occurring funicular railway with which they propose to decorate (desecrate?) the majestic Matterhorn. The Raoul Pictet Pavilion demonstrates the manufacture and uses of liquid air and other gases, and generally of the production of excessively low temperatures, the Pavilion being lighted by acetylene.

THE Museum of Arms in the Kremlin, Moscow, has just received in trust from the Emperor of Russia an historical sword of King Charles XII. of Sweden. This weapon was left behind him at Bender, and became the property of the Pasha of that place, who, in turn, made it a present to General Tutchkoff, Russian Governor of Ismail. In 1822 General Tutchkoff gave it to another Russian General on his way to St. Petersburg, and since that date it has remained in the latter's family. His daughter, now aged 78, presented the sword to the Emperor, who has just passed it on, as stated, to the Kremlin Armoury. The authenticity of the weapon is incontestable, and has been vouched for by the Director of the Paris Artillery Museum, and it has the inscription in gold letters, "Carolus XII."

WE learn that the phenomenal activity in the building trade at Sheffield shows no sign of waning, although it has continued for several years. Builders, contractors, and Architects have still as much work on their hands as they can execute, both as regards domestic and commercial requirements. Among new erections which have been decided upon are the Church at Hunter's Bar, the Woffinden Almshouses, the extension of Heeley Church, a Pupil Teachers' Centre at the corner of Orchard Lane and Bow Street, reconstruction of premises in Angel Street, premises for Mr. John Walsh and Messrs. Nicholson, Greaves, Barber and Hastings at the corner of Fargate and High Street, and many other undertakings. The works in course of construction which are rapidly approaching completion are the High Street buildings, premises in Church Street, and the Prudential Assurance Company's great block in Pinstone Street. The last bit of vacant land in Pinstone Street—the site opposite the front of the Empire Theatre—is now in the hands of the builder, and new shops and business premises are to be erected thereon from plans prepared by Messrs. Holmes and Watson.



ST. MICHAEL'S ISLE derives its name from the Chapel and Burial Ground on it, the more modern name—Fort Island—being no doubt due to Derby Fort, which also gave to Ronaldsway its present name of Derbyhaven, and it was to this island and Langness that the Isle of Man Antiquarian Society recently made an excursion. The Chapel is accurately described by Cumming. It is rectangular (31 ft. by 14 ft.), the walls 3 ft. thick; the door, 9 ft. from the south-west corner, has a semicircular heading, the jambs being of limestone. There were four windows—the north and south very near the east end are now gone, the west one is square-headed, the east a long single light with a semicircular head, 10 in. in breadth outside, splayed within. At the west end there is a Bell Turret; no mouldings or carvings are to be seen. Under the east window is the foundation of the stone Altar, also the remains of "three stone steps which may have served as an ambo or pulpit." The height of the side walls is 10 ft. The graveyard measures about 64 yards by 33. No tombstones now remain, the low earthen fence round the graveyard is almost obliterated, and altogether it has a very deserted aspect. The boundary fence should, at least, be restored, and the graves, chiefly of shipwrecked mariners, respected. The portion of wall under the east window is in a ruinous condition, and a very small outlay would prevent further ruination.

AT the northern extremity of the island stands the circular embattled Fort, about 25 yards in diameter, erected by the seventh Earl of Derby. Over the doorway is an oblong stone bearing an Earl's coronet and the date, which Cumming reads: "1650"—the last two figures are now obliterated. The walls are thick, but not solid. The parapet, in one part, is in a dangerous state, and it was suggested that this should be put in repair to prevent an accident. Near by are the remains of a much older earthen Fort, rectangular, about 41 yards square. Oswald mentions "some small low barrows and indistinct traces of foundations on the southern limb of Derbyhaven Bay, a few hundred yards from St. Michael's Island, and not far from the edge of the water." At Langness the copper mines are of great interest. In early days they were carried on in somewhat primitive fashion, above sea level, by following the lode from about south-west to north-east—almost parallel with highwater mark. Meeting the water, they were obliged to work uphill until an occasional cross-lead from the beach gave an opportunity of easy and profitable working, at the same time enabling them to get rid of the water and secure ventilation. No doubt the depressions in the surface and the arches were formed by the action of the sea working up these cross-leads. This is found by cross-cutting from the beach, both through the old workings and through the lode beyond the end of them. The new workings partly follow the old, and run both into the slate and the conglomerate with good promise. The old workings were almost entirely into a soft ore-bearing deposit of the consistency of putty. The schists at the southern point of Langness are remarkably contorted between the numerous intercepting trap-dykes.

AT a recent meeting of the Institution of Mining Engineers a paper on "Anthracite Coal" was read by Mr. W. D. Wight, who said that out of an approximate area of a thousand square miles in the South Wales coalfield, it was estimated that no less than 410 square miles contained numerous seams of anthracite coal of excellent quality and of more than average thickness. The slow development of which could only be explained by the circumstance that in the past the purposes to which it had been applied in this country were very limited. It was only in very recent years that anthracite colliery owners generally had awakened to the fact that it is possible to create a trade for their coal for domestic purposes if it were supplied to the consumer in such a condition that it could be burned with facility. Stoves were now made with special appliances to meet the requirements of anthracite fuel. The benefits to the community, especially in great cities, arising from the use of an absolutely smokeless combustible, must not be lost sight of. Experience had shown that the size of coals called "nuts" was most suitable for domestic stoves. Anthracite coal was being burned in almost every variety of grate in Wales, although, to those inexperienced in its use, it was slow to kindle. There were large districts in which anthracite coal constituted the fuel of cottage and mansion alike, giving a bright and cheerful fire. Mr. Hart (Huxham) said in burning anthracite coal for household purposes they must discard the old-fashioned notion of poking the fire. All that was required was to keep the bottom clear from ashes.

AN excursion was recently made by the members of the Yorkshire Archæological Society to Mount Grace Priory, near Northallerton, the interesting Carthusian Priory, where excavations are being made for the society by Mr. W. H. St. John Hope. Mr. Mickelthwaite, of Westminster, described the general habits and customs of the old Carthusian monks. Mr. St. John Hope then explained the ruins, stating that though the Priory of Mount Grace was founded in 1397 by Thomas Holland, Duke of Surrey, for monks of the Carthusian Order, and dedicated in honour of the Assumption of Our Lady and St. Michael, yet it was only partly built at the founder's death, and was not completed until the ratification of the foundation by Henry VI., in 1440-41. It was suppressed in December, 1539, when pensions were assigned to the prior, John Wilson, who also received the House and Chapel called Le Mounte. The ruins of this still remain on the top of the hill behind the Priory. Since the visit of the society in 1882, the ruins of the Priory have been almost entirely freed from ivy and other plants, and during the spring of the present year the excavations carried out by Mr. Brown and himself had brought to light a number of interesting features. The eastern part of the Church has been cleared out, disclosing the base of the High Altar, and on the south side of the Choir had been uncovered the walls of a side Chapel containing the bases of a tomb and two Altars. The Chapter House had also been found and cleared, and the sacristan's house identified and partly excavated. Some interesting remains have also been opened up to the west of the Church, and three of the houses on the north of the great Cloister freed from the accumulated rubbish. Much more, however, remained to be done. The Priory of Mount Grace is one of the most perfect examples to be seen in England.



AMONGST the old Churches to be found in Staffordshire, St. Nicholas' Church, Abbot's Bromley, is one of the most ancient and interesting. Unfortunately much of its past history is forgotten, and no complete record exists to show when and by whom it was erected, but there are good reasons for supposing that it dates from the eleventh or twelfth century. At the time of its last restoration, an old Norman arch was found in one of the walls, which was, however, unfortunately hidden by new masonry. Many years ago the old Tower and Spire fell down, and the present Tower, which is in the Italian style, was erected about 1688. The Nave was also pulled down and rebuilt in a totally different style from that which it had originally assumed, being erected in close resemblance to the one at Blithfield, which was probably constructed at the same time and by the same Architect. The present Nave is in the Perpendicular style, with Clerestory of good character, and presents a bold and lofty appearance. The Tower resembles the Church Tower at Burton. It contains five bells, four of which are very ancient, the remaining one—the second bell—having been cracked many years ago, and recast in 1858 by Mears, of London. The oldest portion of the Church is said to be that part known as the Mortuary Chapel, situate at the south-east end, which is in the First Pointed style of Architecture, and is remarkable for its lateral windows, which are triplets. It is said that there are only two examples of such lateral windows in existence in the kingdom. These, however, are not so old as they have been supposed to be, having been actually designed by Mr. Street, the Architect. This Chapel abuts on the Chancel, which is of the next period, the Early Decorated. On the other side is another Mortuary Chapel, of the same period as the Chancel, while the inner door leading from the Vestry is of great beauty. The north door is especially interesting from an Architectural point of view, the arch springing direct from the door-posts, which have no capitals. It is considered to be a specimen of very early work. At the north-east end is a Perpendicular window, decorated, of very curious design, also designed by Mr. Street. The whole of the wall, on the south and east sides, from the Tower to the Vestry, is new work. The Chancel is spacious and possesses many fine specimens of the early Decorated style. The pillars on either side are exceedingly short, and were originally continued down the entire length of the Church, the continuity being broken when the Nave was newly erected. The Sedilia are of stone, set in the wall at the east end. They are, stone for stone, a reconstruction of the originals, which were much broken, and have been carefully restored. From 1852 to 1857 between £4,000 and £5,000 were expended in the work of restoration and rebuilding, the Architect being Mr. G. E. Street.



MOL'S COFFEE HOUSE, EXETER.

THE British Association held its Annual Meeting at Liverpool last week, and numerous papers were read. Sir Douglas Fox, the Vice-President of the Institution of Civil Engineers, presided over the mechanical science section, and in his address sketched the progress, general and local, that has been accomplished in the various departments of civil and mechanical engineering during the quarter of a century that has elapsed since the Association last met in Liverpool, paying special attention to the application of electricity. On Friday Mr. J. W. Barry read a paper on the Tower Bridge, with lantern illustrations.



SKETCHED BY G. J. F. HOOKWAY.

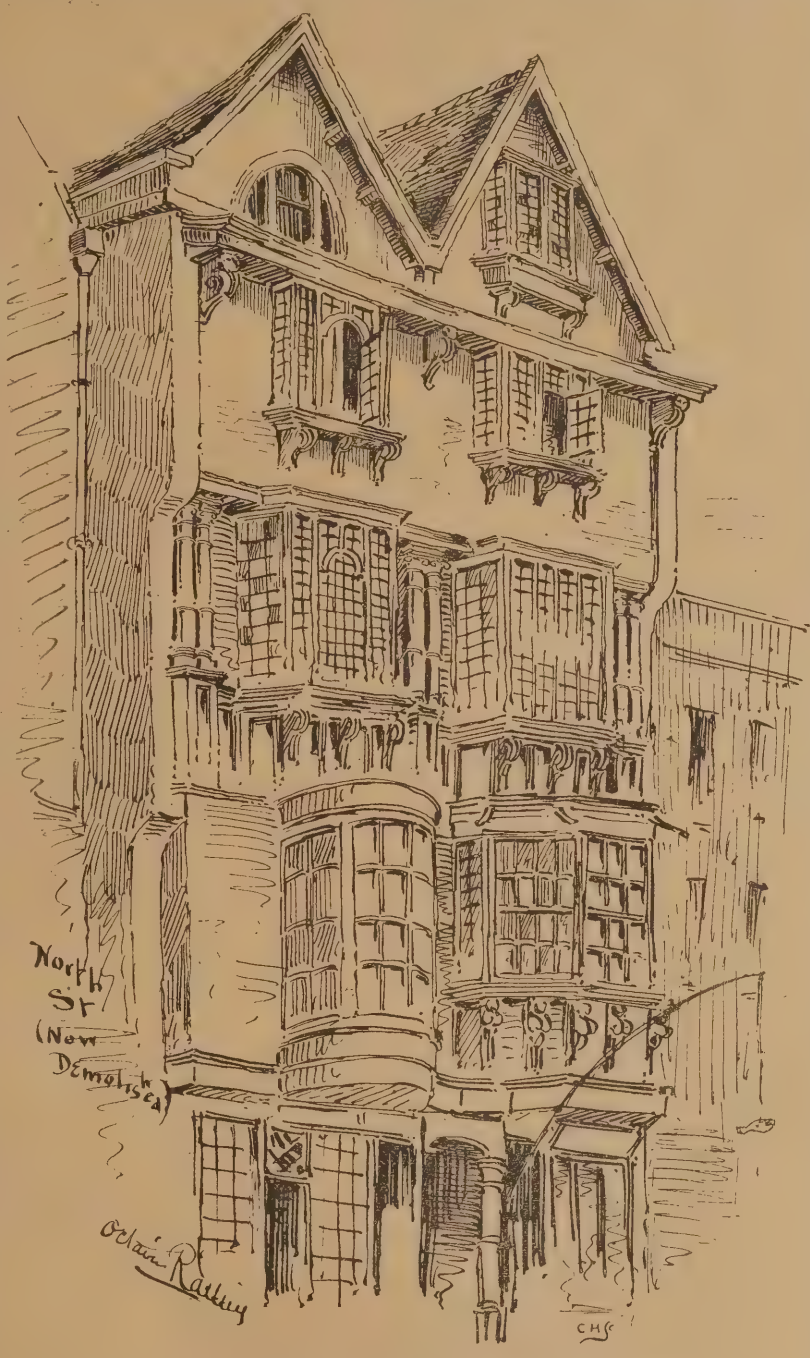
AMONG the forty-two donors of £1,000 to the building fund of the new Westminster Cathedral are Viscount Llandaff, the Marquis of Ripon, Cardinal Vaughan, the Duke of Norfolk and the Marquis of Bute. During the last quarter the Cathedral works were stopped owing to a strike among the labourers, who wanted better pay. New hands were taken on, and the old labourers were defeated. The foundations are finished. Part of the Cathedral will stand in solid concrete which once supported the old Prison of Tothill Fields. The expenditure to date has been about £14,000. This sum does not include the enormous sum paid for the site, which was bought and paid for in the days of Cardinal Manning.

REGARDING the intention of the Manchester Corporation to construct a sewage tunnel, 16 miles long, to Randal's Sluices, and discharge the sewage of the city into the Mersey estuary, it is stated that opposition to the scheme will be forcibly offered by the authorities who are in a greater or lesser degree concerned with the Mersey. Some time ago complaints were forthcoming that a good deal of the refuse taken out daily by hoppers returned to the Wallasey shore, thus causing a decided nuisance, and it is now considered that Manchester's scheme will result in palpable pollution of the Mersey. It is further anticipated that the fishing of the river will likewise be seriously interfered with. There is also no doubt that the proposal of the Corporation "to pollute the Mersey with the effluent and sludge from their sewage works at Davyhulme" will meet with the most strenuous opposition from the rural and urban authorities of Runcorn. Randal's Sluices, where it is proposed to pour the effluent into the Mersey, is situate about three miles from Runcorn, and it is almost opposite Norton Priory.

NEAR Bedford, where once stood Newham Priory, an interesting discovery has just been made in a field. Excavations were being made, when the workmen came across a stone coffin, about 6 ft. 6 in. long, tapering from the head to the foot, and having the usual recess hollowed out to receive the head. No lid, however, could be found, but the fragments of apparently another coffin showed traces of carving. It is difficult to assign with exact certainty the date of the coffin, but it would appear to be of about the twelfth or thirteenth century.

AT the sites of nearly all the fourteen stations of the Central London Railway excavations are being made, and at one or two of them that work has been carried down to the line level. From all these points the tunnelling may be carried on, and it is hoped that by about this time next year both tunnels may be finished. That, of course, does not imply the completion of the work, which will probably require almost another twelvemonths after that to finish. The construction of the circular subway before the Mansion House is proceeding satisfactorily, though more slowly than would be the case if the engineers were at liberty to open the ground at one or two other points. It has been determined to enlarge the station that had been planned for the vicinity of the Post Office, and if negotiations which, it is understood, are in progress, for the removal of property at the corner of Newgate Street and Cheapside should result satisfactorily, it is probable that some slight alteration may be made in the projected course of the line at this point.

MR. ALBERT HARTSHORNE says he finds some difficulty in accepting from Mr. Ferguson, a Norman date for a fortress like Sandown Castle, with a plan so very dissimilar to that either of a rectangular Norman stronghold such as Rochester or Hedingham, or of a polygonal shell-keep like those of Berkeley and Castle Acre. That the Normans covered their concrete walls with an encasement of ashlar stones, large or small, as, for instance, at Kenilworth and Castle Acre, according to the stone-bearing capacity of the different districts—working *more romano*—is well ascertained, and this system of building was continued throughout mediæval times. On the coast of East Anglia church walls are formed of hard pebble concrete with a most durable and time-resisting outer case or skin of shaped flints; and the walls of the Block House of Camber, between Rye and Winchelsea—which towns were added to the Cinque Ports, Dover, Sandwich, Romney, Hythe, and Hastings, by Henry III.—are made of a core of pebble concrete with a thick facing of brickwork. More particularly with regard to the conformation of Henry VIII.'s Block Houses or independent Forts. They are all founded upon the same plan, and their arrangement for purposes of defence, as contrasted with Norman and Edwardian systems of castrametation, would form a most interesting subject for technical discussion. A Block House consists of a circular Keep, with its well, as in Norman strongholds, and circumscribed by an outer wall, from which four or six semi-circular bastions project. Mr. Hartshorne says that from plans made by his father sixty years ago, Walmer Castle, of which the walls are 18ft. thick, and Sandown are of the same conformation and with four outer bastions, and Deal Castle has six engaged bastions on its central Tower, and six on the outer wall. The arrangement of Camber is much the same. Refined concentric plans such as these would have been quite impossible in Norman times, aud quite at variance with the systematic methods both of attack and defence of that period. The remarkable circular bastion called "Tour de François Ier," which stood on the left side of the entrance to the harbour of Havre, was of similar character to Henry VIII.'s Block Houses. It was demolished about 1865. Hollar's map of Kingston-upon-Hull, 1640, shows three great concentric bastions facing the town, and apparently of the time of Henry VIII. As to the diagonal tooling on facing stones at Sandown Castle, it seems that this is a test of date which may easily be pushed too far. Though diagonal tooling of stone is a prominent characteristic of Norman work, it is also an attribute of masons of much later times, owing to the traditional manipulation of stoneworkers. On the Norman Tower of Bradbourne Church, *circa* 1150—to take an example—the bulk of its stones are certainly diagonally tooled, but many are not so treated, while diagonal tooling occurs on adjacent work of the 14th and 15th centuries.



NORTH STREET, EXETER: SKETCHED BY O. RALLING.

A SCULPTOR either imitates the forms of living animals and plants or he ornaments objects with geometrical designs. But it is possible to mix the two classes of figure together, and Owen Jones, in his Grammar of Art, says that so far from its being necessary to faithfully copy the natural forms of plants and animals, in the best periods of Art the imitation is conventional, and true enough to recall the original, but fictitious enough not to destroy the unity of the work. This rule, he observes, has been invariably followed during great periods of Art and violated in periods of decadence. Dr. Regnault, however, has shown from a comparison of savage ornamentation that this rule is not merely a characteristic of great periods of Art, but is founded in the nature of man, for it is exemplified in the canoes of the South Sea Islanders, the war clubs of the Negro, the heraldic posts of the Haidahs in Colombia, Central America, and elsewhere. The principles which guide the ornamental Art of to-day come not from the Renaissance or the Classical period, but from the very origin of Art.

ELECTRIC railway engineers in Switzerland are busy constructing roads to the summits of the various mountain peaks to enable tourists to examine the surrounding ranges and valleys. A new road has now been completed to the summit of Mont Saleve, a huge mass towering above Geneva to a height of over 4,000 feet. The view from the plateau on the top is magnificent, surpassing all other Alpine panoramas throughout Switzerland. The whole pile of Valaisian Alps, from Mont Blanc on the right to Lake Leman on the left, are visible. The electric part of the road is about four miles in length, and runs chiefly over French territory. As upon other Swiss roads, the system used is that of the third rail, the current carrying rail being placed a few inches above the ground for insulation on short posts. Between the rails, which are solidly laid on a well-ballasted track, runs a rack rail. Where the grade is extreme the rack is double, the teeth being set so as to give the car a two-fold grip. Additional security is also furnished by air-brakes. Current is supplied to the line at a potential of 600 volts for a water-power plant, and is brought to the road across the mountain sides by ærial cables connected about midway in the system. The generators are 12-pole machines, and each weighs 19 tons.

THE Church of St. Mary the Virgin, Coddenham, is famous amongst the famous Churches of Suffolk for the glory of its hammer-beam roof, its deep and leaning Chancel, its quaint Porch facing the village street, and the great hight of its Tower. Some eight years ago its roof was by competent authority declared unsafe and restored, but the Chancel was still filled with family pews, and the school children all occupied benches outside the Sanctuary. This has been recently restored on ancient lines, and a new Reredos erected at a cost of some £800. On removing the old Chancel pews before alluded to, illuminated panels, forming part of the fifteenth century screen, were discovered, and these have been placed in the Vicarage Library awaiting funds for their restoration and the setting up of the screen.

IN our criticism of the National Competition on the 2nd inst., we mentioned Mr. James A. Swan's Church design as having gained a book prize. We learn from Mr. Swan that the award he gained was a bronze medal, and also that the drawing was the result of a test examination, the time allowed for making the sketch design being only one hour and three-quarters, which had to be rigidly adhered to in the finished drawing. It was a pity, under the circumstances, that this fact was not mentioned on the drawings.

A GLASS-HOUSE under water, according to "Truth," is the latest luxury. A rich man, who has a large lake upon his estate, recently caused it to be drained, and in the deepest part he has had a house built which contains three rooms—a Smoking Room, a Dining Room, and a servant's Waiting Room. The framework of the house is of iron, and the floor is stone resting upon a foundation of concrete. The sides and the roof, however, are entirely composed of very thick plate-glass. There is a passage under the water from the boat-house to the glass-house, and air is obtained through large clumps of artificial water-lilies which rest upon the surface of the lake. This is decidedly a new luxury. The house and the passage, moreover, cost comparatively little to build.

WE are pleased to acknowledge our indebtedness to Messrs. H. J. L. J. Massé, Leonard Crosse, and T. Raffles Davison, for the photographs and sketches which were in part used for the illustration of the article which appeared in our issue of the 9th inst., upon the work of Mr. C. F. A. Voysey.

STRAY NOTES ON SOME CHURCHES IN BELGIUM AND NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

II.

THE finest and most satisfactory piece of First Pointed work in the Low Countries is, perhaps, the south Porch of the Church of St. Servatius, at Maastricht—whose ensemble recalls some of the great Romanesque examples of the Rhine. The Porch in question is of gigantic dimensions, being 40 ft. in height. During the restorations carried out here under Cuypers, the bold yet refined detail of this Porch has been concealed with a somewhat too lavish hand by the polychromatist, who, doubtless found sufficient traces to go upon. The great screen-like façades, such as we meet with in the Hildesheim, Halberstadt and Goslar Churches, are distinguishing features, both of St. Servatius and Notre Dame, at Maastricht. The town also contains a desecrated Church, which needs but a little repair to bring back to its pristine condition. It is in an excellent state of preservation, and the Early Pointed groining of its Apse is most lovely. The unfinished state of so many of the great Belgian Church Steeples may be attributed to the fact that the main portions of their fabrics were in progress during the fourteenth and fifteenth centuries, when the Netherlands were at the height of their commercial prosperity, and that the building of their Towers, the last portion to be taken in hand, was allowed to drag on until a sudden change in the fortunes of the country led to an abandonment of the works—sometimes when they were in a very incipient condition, as at Louvain, Huy and Mons. Here the Towers, whose lowest stages all exhibit an overgrandeur of conception which it has never been possible to carry out, truly reach to the apex of the Nave roof. Louvain was to have had a noble trio of Steeples—somewhat after the manner of those we see at St. Servatius, at Maastricht—and of these the centre one was to have attained an altitude of 500 ft., while the side ones should have reached no inconsiderable height. At present, unless extraordinary individual munificence is forthcoming, or such works are made a national affair, there seems little likelihood of their ever emerging from the state in which we now see them. There is, to be sure, not only the novelty of the unexpected about an unfinished Steeple, but a certain massive grandeur which we should be unwilling to see disturbed.* Louvain, Huy and Mons, St. Michael at Ghent, and St. Jacques at Antwerp, all illustrate this. Of completed Belgian Church Steeples that of Antwerp holds the first place. Of so apparently delicate and graceful a construction is it that Charles V. used to say that it should be preserved in a case. Next in point of completeness comes the Steeple of Malines—Somewhat too attenuated for a solitary western Steeple, but when viewed at an angle, apart from the Cathedral, and scaled by some houses to the north of that edifice, is a truly noble conception. Just after sunset when the delicate grey stonework of its windows has been thrown into deeper shade by the buttresses which lend it a character peculiarly its own, this Steeple at Malines charms beyond expression. The collegiate character of the Church of St. Gudule, at Brussels, has entitled it, like Antwerp, to a pair of western Steeples. They are of uniform height, and although exhibiting a rigid, and it may appear to some, excessive verticality, have a dignified sobriety about them which is perhaps more appealing than the colossal specimens just alluded to. I may refer, among other tolerably completed Steeples in this part of Europe, to those of St. Bavon and St. Nicholas, at Ghent—the latter interesting on account of its central position; and to those two noble western ones which, belonging respectively to the quondam Cathedral and the ruined Abbey of St. Bertin, unite in rendering the first view of St. Omer from the railway so refreshing to the student after the dreary journey from Lille or Calais. In some instances, we find an unfinished Tower capped with a slate or lead dome, often fantastically coloured, and sustaining a splendid Spire. Almost every town offers a specimen of this kind, but the true stone Spire—such Spires as are the pride and glory of our Nene Valley, or the Holland of Lincolnshire—are very rarely to be met with in Belgium. The red-brick Spire of Notre Dame, at Bruges, and an openwork one belonging to a Church in the western part of Louvain, being all that I can at present call to mind. However engrossing the subject of Steeples may be, I must reluctantly quit it, and proceed to say a few words upon the colour of Belgian Churches internally. I need not remind those familiar with the interiors of such mid-Anglian Churches as Chester, Lichfield, Shrewsbury and Worcester what an important factor the roseate hue of their stonework is, in investing them with more than ordinary religiosity and beauty. Belgium presents us with numerous instances of this effect of natural polychromy, and produced chiefly by a less costly material, *i.e.*, red brick, so largely used in the construction of Churches, both inside and out, and nowhere, perhaps, used with such pretty effect, and to so great an extent, as at Bruges, where such details as window tracery are moulded in it. One of the most beautifully-proportioned Church interiors is that of St. Waudru, at Mons. St. Waudru has had the good fortune to escape those demons, whitewash and yellow dab, which have united in rendering so many a noble Belgian Church cold and unattractive to the true artist. At Mons we see the original pale blue of its piers, arches, mullions, tracery and vaulting ribs, and this, taken in conjunction with the deep red of its brick vault, produces a richness and warmth that is eminently pleasing and grateful to the eye fresh from the white interiors of Antwerp and Malines. At Mons, then, we have a true instance of the natural polychromatic work of the sixteenth century.* Among other Churches in which the clearance of waste and plaster has brought it to light may be named those of Notre Dame de la Chapelle and Notre Dame du Sablon at Brussels; St. Paul's Cathedral, and St. Martin's Church at Liége; Ghent Cathedral, and the pretty triple-steepled St. Jacques in the Marché de Vendredi there. Now the roofs, pillars, vaults and walls of all these Churches stand forth in all their pristine beauty of pale blue and tawny yellow stonework (sometimes as in the Triforium of the Cathedral at Liége curiously pieced together) and red brick. The *toute ensemble* of all these Churches is now *cela va sans dire*, indisputably gorgeous, notwithstanding a slight effect of glare inseparable at present from the recently cleansed brickwork. In all these instances the comb has done its work well! Most of the Antwerp, Bruges, Louvain and Malines Churches are still smothered in wash and plaster, which, however, cannot rob those buildings of their proportions, which, despite the poverty of much of their detail, are truly majestic. Antwerp, with the entrancing vistas across its seven Aisles of simple arches springing from piers without the intervention of capitals. Malines, with its noble array of tall cylindrical columns—a thoroughly Belgian feature, and one which seems to have lasted through all the epochs of the country's Pointed—and its unencumbered area, so admirably adapted for imposing ceremonials. That red brick does exist in the vaults of this Cathedral is evident from the fact of a large piece of the plaster having fallen from it. With this objectionable material removed, and the ancient red brick exposed, Malines Cathedral would present an internal aspect, taking it *en masse*, as fine as anything of the kind on the Continent. It seems like presumption to criticise such buildings as these, erected by men of old time for the worship of their Creator, yet I know not the use of Architectural study if it is to be followed with that blind faith which constrains people to go into ecstacies of admiration over every building from the thirteenth to the sixteenth centuries. In no captious spirit, then, have such remarks as I have made been undertaken. That Belgium—taking its extent into consideration—is richer than France in ecclesiastical buildings cannot be doubted, but then its Architecture is not of the best or most refined description; and it is certainly not the first country of Europe towards which the Architectural student should turn his attention. Exigencies of space, to say nothing of the title I have selected, preclude me from descanting upon Belgian ecclesiology. Much as I should like to dwell upon the furniture with which almost every Church there is equipped—though, to be sure, a great deal of it, owing to the Calvinistic iconoclasts of the sixteenth century, is of Early Renaissance date—I must pass on with my readers to a more historically interesting country from a purely Architectural point of view—Germany.

* Some of my readers will doubtless remember how very grand the Tower of Sir G. G. Scott's masterpiece—St. Mary's, Stoke Newington—used to look, before the erection, six years ago, of the present belfry stage, and infelicitous spire.

* In the buttresses of the Apse of St. Anne's Church, Louvain, occurs a delightful example of polychromy. The alternate courses of brown and white stone recall the "veal and ham" work of Higham Ferrers and its vicinity.

KEYSTONES.

AN interesting piece of work in the shape of a Lectern Stand has just been placed in St. Michael's Church, Neepsend, designed, carved, and made by Mr. Kent, a member of the Sheffield Art Crafts Guild. It is in oak, and stands on a massive base, with bevelled ends.

ST. RONAN'S WELL, immortalised by Sir Walter Scott, has been taken in hand by a company, who have leased the land from Mr. Maxwell Stuart, of Traquair. Of recent years they have been sadly contaminated by surface drainage, but now a spacious Pump Room has been erected, and the whole place has been improved.

WHAT is supposed to be an ancient barrow, or burying-place, has been discovered on Pale Hill, Marsden. A shepherd found an arrowhead and two small vases, or urns, with human bones inside, and also two skeletons of adult persons. The vases were broken during excavation. The bones of the skeletons began to crumble on being pressed and exposed to the atmosphere.

THE authorities at Bale have resolved to proceed at once with the building of an Electric Generating Station. The Rhine will be tapped at Augst, about three miles from Bale, and a channel about three-quarters of a mile long will carry the water to the Turbine House. According to the "Electrician," at first 7,700 cubic feet of water per second will be available, representing about 9,000 horse power; but should necessity arise a dam could be built into the river and the capacity increased.

BUILT by George Stephenson for the Killingworth Colliery Company, "Puffing Billy," which is believed to be the third locomotive he constructed, has for the past fourteen years stood on the end of the High Level Bridge at Newcastle. The position, while conspicuous, has exposed the engine rather too much to wind and weather, and despite successive coats of paint it has been manifesting signs of decay; so it is now to be removed to less exposed quarters under the roof of the Central Station.

THE Battleship "Illustrious," recently named by Lady Bedford, is the last of the trio of first-class battleships entrusted to Chatham Dockyard to construct. The principal dimensions of the new battleship are—extreme length over all, 420 ft.; breadth 75 ft.; draught, forward 27 ft, aft 28 ft.; freeboard, forward 25 ft., amidships 18 ft., aft 18 ft. 6 in.; displacement, 15,000 tons. The engines are the inverted vertical triple expansion type. With natural draught it is expected 10,000 horse-power will be obtained, and a speed of 16½ knots on the contractors' eight hours' trial, The "Illustrious" has six decks. The middle deck amidships and lower deck at extremities form the armour deck, averaging 3 in. in thickness throughout the ship, protecting the propelling machinery, hydraulic machinery, air compressors, steering gear, also the magazines, shell rooms, &c. The armour on the side of the vessel will extend from 5 ft. 6 in. below the water-line to 9 ft. 6 in. above it, and will consist of Harveyised steel 9 in. thick. The coal-carrying capacity of the Illustrious will be 1,800 tons, a supply which would enable her to steam 28 days at ten knots. Electricity will be employed for lighting the ship internally.

IS A WATER CISTERN DESIRABLE IN A HOUSE?

TO be discussed fairly, the subject is obviously one that cannot be approached entirely from the sanitary point of view. It must also be considered from the point of view of convenience and comfort to the householder. When, for example, the supply is for some reason or other likely to become restricted for any length of time, it is difficult to see how a cistern in the house can be dispensed with. In short, it can only be dispensed with when the supply is absolutely constant. Supposing that the water supply of London were at all times greatly in excess of that required for all purposes, still it could never be regarded as being always "laid on" to the house of the consumer. To cite one instance, the repairing of mains in the event of leakage is an operation frequently involving several hours', if not days', work. In that case a large district might be without water for a serious, if not an inconveniently long, period of time. That, perhaps, is the only argument for the adoption and retention of cisterns for storing water on a small scale for domestic purposes. From the sanitary point of view there can be little doubt that most people not only give no attention to the cleanliness of a cistern, but do not even trouble themselves to find out whether it is situated among wholesome surroundings. And so, in many cases where the pollution of water has been suspected, startling revelations in regard to the position of the cistern and of the nature of its contents have, on inspection, been brought to light. Nor is the householder to be entrusted to carry out the periodical cleansing of the house reservoir properly unless he understands the responsibility attached to the task. No matter how irreproachably pure a water supply may appear to be, yet the continual passage of a large volume of it through a reservoir will invariably result in the deposition of more or less slime on the walls of the tank. This is due principally to the growth of algae and other probably harmless vegetable matter. Indeed, this slime is accorded by bacteriologists certain actively virtuous qualities, not the least important of which is that of entangling microbes in its slimy interior. But it is in consequence of this very fact that the slime is found after a time to teem with organisms, and thus may prove an unexpected source of danger. Hence periodical cleansing is an imperative step. That the system of storing water is not without some redeeming features is also indicated by bacteriological experiment. It is not possible, in fact, that the wholesome effects of storage on a large scale could apply on such a small scale as in the cistern of the householder. The consideration of facts leads but to one conclusion, and that is that "storage" and settlement should be left entirely to take place at the sources of water distribution. In other words, the community should draw from one big cistern—the waterworks—and the interception of a small container can only be warranted on the ground of scarcity or irregularity of supply. It has been suggested that the difficulty would be completely met if a large expansion of the service-pipe in the house could be made. This expansion or box should, of course, be made large enough to meet the requirements of the house in the event of the main being turned off. In fact, what is proposed is that so long as the mains are full the water direct from them should be made available, while when the supply is shut off the cistern would come into use. But in this case it is obvious that precautions to keep the cistern clean should be just as rigorously observed, and therefore the interior of the cistern should be accessible for the purpose. While the system of cistern storage has met with considerable opposition from many who are adjudged sanitary experts, yet we believe that it is a fact that in very few instances has any serious illness been traced to their employment, in spite of the reports received from time to time of the negligent way they are kept. The whole question may be summed up in a few words. If cisterns are to be abolished then the supply must be absolutely constant. Obviously, a constant supply can only be given when the storage capacity of the waterworks is adequate and the distributing services highly efficient. Assuming, however, that the supply can be guaranteed in liberal and unstinted quantities at all times, the question as to whether any occasional emergency necessitating the cutting off the water for a time would make it essential that the cistern or some modification of it should be retained, remains to be decided.

CAMBRIAN ARCHÆOLOGICAL ASSOCIATION.

DURING their excursion to Aberystwyth the members examined the ruins of the Castle. This at one time important stronghold has been so battered by successive combatants that the ground upon which it stood is cumbered with shapeless masses of masonry, rendering its study a task of great difficulty. The Castle is almost entirely of the date of Edward I., though a pre-existing Keep seems to have been utilised during the Edwardian construction. Mention is made as early as A.D. 1109 of a Castle at Aberystwyth, and at another time one at Aber Rheidol, the two rivers which join their waters at the instant of their combined fall into the sea. The celebrated Strongbow is said to have erected a Castle here to secure the territory he had managed to acquire from the Welsh. A hundred years later Llewelyn ap Iorwerth rebuilt what has been conjectured was the first fortified post on the site of the present Castle. In 1277 Edward I. secured the conquest of Mid-Wales by building a strong Castle here, which, as has been said, may have been incorporated with a portion of an earlier work. Edward's Castle is constructed upon the same general plan as those of Beaumaris, Conway, and other great works of his period. It consisted of a gateway, with strong flanking Towers, an inner baillium, guarded at angles by Towers, and an outer ward, protected by strong walls. The whole was surrounded on the landward sides by a deep moat. Llanbadarn Church was also visited. This, the third or fourth in size in Wales, has been thoroughly restored internally. The boldness and massiveness of design, especially of the splendid central Tower, have been recognised by antiquaries of every rank, and bespeak the influence and power of the former head of the See of St. Padarn. The present Church dates from about the close of the twelfth century. The fine Early English doorway seems to be a later insertion, and gives weight to the popular tradition that it came from Strata Florida Abbey at the dissolution of that house. In the Chancel is buried the famous antiquary Lewis Morris. An interesting discussion arose upon the correct reading of an inscription built into the internal wall of the Chancel. A tall incised Cross stands in the churchyard, where its details are slowly vanishing under the influence of the weather. It is probably of the tenth or eleventh century, and bears no inscription. The ancient Church at Towyn, said to be one of the oldest in the Principality, was also inspected. The fame of the holy St. Cadvan, who is supposed to have flourished in the early part of the sixth century, probably led to the construction of a small Oratory, or group of Oratories, after the manner of Glendalough and other Irish examples, on the spot hallowed by his labours or rendered sacred by his burial. This primitive edifice gave way, some time during the twelfth century, to a more important Church, a portion of which forms the Nave and Aisles of the present building. The Nave is of three arcades, supported upon enormous stunted piers in the Norman fashion, but it would be difficult to decide whether they really are of that period or not, owing to the absence of all ornamental detail. They are, at any rate, of extreme age, and, though coated with plaster to such an extent as to entirely hide their true character, have much in common with the earliest work of the kind in the small Churches of Normandy. Above is a range of small deeply-splayed Clerestory windows, of apparently the same age as the Nave arcade. The roof of the Nave is Late Decorated of very good character. The arches of the north Aisle of the Nave have been strengthened by building them up in the shape of buttresses, but those on the south side remain in their original condition. The portion of the early Church forming the present Nave extended further to the west, but has been cut off short by a poor West Front. The Church, always one of considerable reputation, became a collegiate foundation, modelled after the later Monastic type, and this development probably led to the reconstruction of the Church into the form common to the collegiate Churches of Wales. It became cruciform in shape, with a central Tower. The Transepts and Tower have been completely restored, and not a vestige of their original character can be traced. There are two interesting effigies in the Church, one a knight of the period of Edward III., and the other a priest in canonicals of the fourteenth century. The Tower fell in 1692, and in 1736 another Tower was built at the western end of the Church, which was taken down at the recent restoration. On the floor of the Church lies the famous stone of St. Cadvan, which has proved a greater puzzle to Cambrian antiquaries than probably any other of the Welsh inscriptions. After a lengthy examination the antiquaries came away as puzzled as when they arrived, but careful rubbings were taken by Mr. Romilly Allen, which may lead to the correct elucidation of its meaning. In the north Transept is a tablet bearing an inscription placed there to the memory of the mother of the celebrated bard "Dafydd Ionawr," who was born in this parish. St. Cadvan's Well, which stood outside the churchyard, and which was celebrated for its miraculous properties, has been enclosed within the precincts of some newly-built stables, and has been robbed of all its pristine associations.

At the general meeting officers were appointed for the following year, and the vacancies created on the Council by the retirement in rotation of three of its members, filled by the election of Mr. Henry Owen, F.S.A., Mr. T. Mansel Franklen, of St. Hilary, and Canon Llewellyn Thomas, of Oxford. An appeal for funds towards the expenses incident to the publication of the great archæological survey of Wales that the Association has undertaken, met with gratifying support, and the survey of Pembrokeshire will be proceeded with with the utmost despatch.

A NEW Primitive Methodist Mission Hall has been erected at Hunsworth at a cost of £500.

AT Winchcombe a new Wing has been added to the Cottage Hospital. The cost has been £225, which is being met by Mrs. Dent, of Sudeley Castle.

THE demolition of Toole's Theatre, in King William Street, Charing Cross, has commenced, and within the next few weeks the building will be no more.

THE Chatham Corporation has decided to build a Town Hall at a cost of £20,000. It will be erected on a site acquired from the War Department at the top of the Military Road.

THE plans submitted by Mr. Joshua Jowett for the Royalty Theatre, in Cheapside and Market Street, Morecambe, have been rejected in consequence of the main wall being brought out in front of the main wall of the adjoining buildings.

AT the Blaker Recreation Ground, Brighton, a Clock Tower has been erected at a cost of some £400. The Clock Tower was designed and erected by Messrs. Gillet and Johnston, Croydon, and is the gift of the Mayor to the Corporation.

SHOULD the plans be passed by the Commissioners of the Exhibition to be held in Paris in 1900, it is proposed to construct a Tower with twenty-four stories, which will contain Theatres, Concert Halls, Restaurants, and similar places of public entertainment. It is intended that the whole building shall revolve on its axis.

THIRTY thousand lamps, gas, electric, and naphtha, are required to illuminate the streets, avenues, parks, docks, and bridges of the city of New York. The number of electric lights, slowly but visibly superseding gas lamps for purposes of street illumination, is 3,300, and the city expends in a year more than £200,000 for lighting. The appropriation this year is exactly £250,000 for lighting the highways and public properties.

WROUGHT IRON WORK.

RELICS OF HUNTINGTON SHAW.

A DISTINGUISHED Italian is said to have declared that nothing impressed him so much as the magnificence of our modern Domestic Architecture. During the last quarter of a century, says the "Westminster Gazette," our cities have been adorned with a profusion of buildings beautiful enough to afford some compensation for the antiquarian loss on the demolition of the older structures. But in one thing we fall lamentably below the work of our forefathers. We do not seem to be able to set up a beautiful gate or screen. Yet nothing gives so notable a finish to a handsome building as a beautiful gate. Where shall we find anything among the productions of to-day to rank with the magnificent work of Huntington Shaw, smith, of Nottingham, who about two hundred years ago wrought those twelve exquisite gates and screens at the command of William III. for his Palace at Hampton Court? Several of these have happily been placed in the South Kensington Museum, where they are preserved, and worthily bear comparison with the finest examples of German, French, or Italian work. Or where shall we look for anything comparable to the exquisite gates which adorn the Wrenean Terraces of Chelsea, Kensington, Hammersmith, Richmond, or any of the suburbs fashionable in the period roughly covered by the years 1650-1750? Yet the art of the smith has not been neglected in this era of artistic revival. Great credit is due to the firm of Messrs. Starkie, Gardiner, and Co.; but they do not stand alone. Many beautiful objects for the adornment of the home—lamp-brackets and stands, window-grilles, balusters, &c.—are being produced; scores of them may be noted in the course of a stroll through the newer portions of Chelsea and Kensington. Here and there a good gate is to be seen; there is an exquisite gate and grille to one of the new houses in Sloane Street, and another in Cadogan Square. As a general rule, these modern productions fail in over-elaboration. Nothing is so remarkable in the older work as the chasteness of the design and the healthy restraint which the designer has placed upon himself. This is especially noticeable in the beautiful screen from Frome Church. It would have been very easy for an inferior designer to have filled up the vacant spaces with repetitions of conventional forms, but only an artist could have imposed so severe a restraint upon himself while producing a work so graceful and delicate, and so entirely satisfying the artistic instinct. A goodly proportion of the beautiful old gates and screens came from the extinct Sussex ironworks. These were chiefly conducted on what would now be considered a very small scale, and by very old-fashioned methods, but this order of things is that which is most favourable to the production of true artistic work. Thus it is that we are now carefully treasuring the relics of these bygone furnaces, both in cast and wrought iron. There is some ground for believing that the beautiful grilles in St. Paul's were produced in this county, probably at the Gloucester Furnace, Lamberhurst, where the great railing of the Cathedral was executed. The traditional skill of the Sussex smiths still lingers in the county, but there are sufficient examples of fine workmanship scattered over the country to show that this skill was not circumscribed either by place or time. Examples of twelfth-century work, showing both skill in construction and elegance in design, may be seen on the slype door of the South Transept of St. Alban's Abbey, and in the grille of St. Catherine's shrine at Winchester. A century later a great advance in both respects may be observed in the grille of Queen Eleanor's Monument in Westminster Abbey. The screen at Frome is early seventeenth century; two elegant specimens of the latter end of this century may be seen in the mace stands (decorated much in the taste of Shaw's Gates) which came from the Church of Newcastle-under-Lyme, and are now preserved at South Kensington. The gate from Rosslyn House, Hampstead, demolished in April of this year, is a pleasing example of the light and graceful work of a later time. Notwithstanding the destruction that is continually going on, a very large number of specimens of this old Art yet remain, though often badly worn and rusted through neglect. The commonness of the material has generally been their salvation: they are not worth melting as brass or bronze would be.

SOCIETY MEETINGS.

Glasgow Institute of Architects.—The Exhibition of Metal Work will be open from about the 12th October till the end of that month. The exhibits will include cast and wrought iron, brass and copper work, ormolu, lead, silver, or other metals capable of decorative treatment. Contributions of old examples are invited, as well as the best class of modern work. Drawings and photographs of metal work will be included. All articles intended for exhibition must be delivered at 187, Pitt Street, Glasgow, on Thursday, Friday, or Saturday, the 1st, 2nd, and 3rd of October. Each article should have securely attached to it a label with the exhibitor's name and address.

Sheffield Art Crafts' Guild.—A meeting of this Guild was recently held. The master, Mr. T. Swaffield Brown, was in the chair. There were also present Messrs. Green, Tuck, Halliday, Crowder, Shephard, Crichton, Douglas, and others. A report was read by the Treasurer on the late Exhibition, and Mr. Charles W. Crowder read a Paper on "Some of the Uses of Photography." The Lecturer sketched the progress of Photography in recent years, and enumerated a number of the multitude of processes now in use, with the effect they have produced on past and existing methods. He also suggested that Photography might be of considerable use to the sculptor by taking a photograph from the drawing, or model, and from it make a transparency, projecting it by means of the optical lantern on to the stone.

Cumberland and Westmoreland Antiquarian and Archæological Society.—The annual meeting was held last week after the excursion, in the Coniston District, for the appointment of officers, the election of new members, &c. Among other reports and papers laid before the members during the two days were "The Sawreys of Broughton Tower," by Mr. John Fell; "Notes on the Church Bells of Cockermouth, Crosthwaite, and other Churches in Cumberland," by the late Rev. H. Whitehead; "Folk Lore of Hawkshead," by Mr. H. S. Cowper, F.S.A.; "Aske's Rebellion," by Mr. George Watson; "The Mountain Sheep, their early origin, markings, and numberings," by the Rev. T. Ellwood; "Report of the Cumberland Excavation Committee, 1896," by Mr. F. Haverfield, F.S.A.; "Notes on Excavations on the Roman Walls, 1894-95-96," by Mrs. Hodgson; Prehistoric Implements in Furness," by Mr. Harper Gaythorpe; "Local Effigies," by the Rev. R. Bower; "Broughton Church," by the Rev. F. A. Malleson; "Thomlinson of the Gill," by Mr. G. W. Thomlinson, F.S.A.

IT is said that the John Bright Statue is to be removed from the Central Hall of the House of Commons.

MR. BUCHANAN has been elected President Harbour Engineer at Dundee. The appointment is worth £400 a year.

THE decision of the Board of Trade as to the proposal to remove the Platters Rocks at Holyhead may be expected in the course of next month. Besides the removal of these rocks it is also proposed to puild a Pier from Salt Island.

DURING service in St. Stephen's Church, Ipswich, an oak beam fell in the Choir Stall, but fortunately no one was injured. This part of the roof is very old, and, it is said, rotten with age. Steps will be at once taken to examine the roof.

IN the thunderstorm on the 8th inst., the ancient parish Church at Lamberhurst, Kent, was struck by lightning. The spire was partially stripped of its shingles, the interior timbers split or displaced, the west window and door received serious damage, and two longitudinal cracks revealed themselves at the top of the south walls of the Nave and south Aisle respectively. The whole Church received a very serious shock, and, but for the rain, probably would have caught fire.

Professional Items.

SKERTON.—A new School Chapel, designed by Messrs. Pugin and Pugin, was recently opened at Skerton, Lancaster. The contractor was Mr. Wm. Harrison, of Lancaster.

WOODHALL SPA.—On Wednesday the new Roman Catholic School Chapel was opened. It is well and substantially built from the designs of Mr. Adolphus Caine, and the builder was Mr. Oliver Cromwell, of Woodhall Spa.

ARUNDEL.—At Arundel Castle the Duke of Norfolk recently gave a dinner to all the employés engaged upon the work of restoration. The contractors are Messrs. Rattee and Kett, of Cambridge, and the work has been carried out under the superintendence of Mr. Butler, the Architect.

COWBRIDGE (Glam.) — The Intermediate Girls' School was opened last week The new Schools, which are in close proximity to the Railway Station, have been erected from the plans of Mr. Robert Williams, of Lee, S.E. The accommodation is for 40 scholars and 12 boarders, and the building has been erected at a cost of £2,500.

GLOUCESTER.—A new and admirably-arranged Depot has been erected, and embraces stabling for twenty-six horses, shed for all kinds of carts, and workshops. The Depot is built on the pattern of that at Birmingham. The contractors were Messrs. Gurney Brothers, and the premises, which cover an acre and a half, cost nearly £6,000.

GOOLE.—A Reredos has just been placed in the Church of St. Bartholomew, Eastoft, near Goole. It is of Baltic oak, rising to a height of 12 ft. with a canopy, the top of which is carved and pinnacled and gilded. The Reredos is the gift of the late Mrs. F. Sykes, of Boltgate, and was the design of Mr. Hodgson Fowler, of Durham.

HAMMERSMITH.—The new building of the Hammersmith Liberal Club was recently opened by Sir C. Dilke. The Club House, one of the most convenient of its kind in London, will accommodate between 700 and 800 members. The Architect of the new building is Mr. T. Woodbridge Biggs, and the builder, Mr. H. E. Tomes. The cost of building and the freehold site has been £5,000.

DIDSBURY.—Within the past eighteen months a sum of £2,500 has been spent in enlarging and decorating, and erecting a new organ, in Didsbury Parish Church. This instrument has been built at a cost of nearly £600 by Messrs. Jardine and Co., of Manchester, and the oak front case, erected from a design of Messrs. Preston and Vaughan, Architects, of Manchester, was presented to the Church by Mr. H. T. Crofton.

NEWBAWN, CO. WEXFORD.—The new Catholic Church of the Sacred Heart has been dedicated. The Church supersedes an old relic of the penal days. It was built by Mr. Andrew Cullen, New Ross, from the design of Mr. Wm. Hague, C.E., Dawson Street, Dublin. The style of the building is early Gothic, and it consists of Nave, Aisle, and Apse. Interiorly the principal proportions are 100 ft. in length and 32 ft. across the Nave and Aisles. The total cost was about £3,000.

MOUNTSORREL.—On Thursday foundation stones were laid of a new Primitive Methodist Chapel and Schools, at Mountsorrel, near Loughborough. A site fronting the main street was secured for the sum of £300, and the contract for the Chapel and School Room has been let for £1,100. There is to be accommodation, in the Chapel for 200 worshippers, and the School Room, which is situated at the rear, will accommodate a similar number of children. The Architect is Mr. R. W. Dakin, of Leicester and Barrow-on-Soar, and the builders Messrs. A. Faulks and Son, Loughborough. Plans showing a building of Gothic design have been approved, the materials being pressed bricks with stone dressings.

PENDINE.—The Peter Williams Memorial Chapel was opened last week. The building is very unpretentious in its style of Architecture, and has been built at the lowest possible cost. It has cost about £400, and will accommodate about 250 worshippers. Almost square in shape, the front is of lime stone with yellow brick facings, the other three sides being plastered. The Architect was Mr. Morgan, Pendine, and the contractors Messrs. David Rees and Sons, Whitland.

BRIDGNORTH.—The Infirmary which the Viscountess Boyne recently opened at Bridgnorth is built from the designs of Mr. Maidman, of Edinburgh. The building is in the English Domestic Architectural style, and is well in keeping with its surroundings. The Wards have been placed in a southerly aspect, and are screened from the east winds by the Administrative Offices. The building, which stands on an elevated site, has been erected by Mr. Merton Hughes, of Birmingham.

ABERFELDY, N.B.—Comrie Bridge is erected on the site of the old bridge which was destroyed in the early years of the century. The new structure consists of three spans, each 55 feet long, and is constructed of steel lattice work. The piers and abutments are built of stone set in cement and rest on rock. The roadway is 16 feet wide. The work has been carried out by Mr. William Oliver, Edinburgh, from a design prepared by Mr. William Bell, Aberfeldy.

ENNISKEEN.—To the grey and venerable Gothic parish Church an entrance and flight of terraced steps have just been built. The piers, walls, and steps are of chiselled limestone, from the quarries of Cork and Aherla, and the main and side gates are of wrought iron of a highly ornate character. The work is from the design of Mr. M. A. Hennessy, Architect, Cork. The stonework is by Messrs. McCarthy and Lynch, the ironwork by John Perry and Sons, and decorations by Messrs. O'Connell.

GLOSSOP.—Fitzalan Street Church was recently opened. Of the total amount required —£3,500—about £300 is all that remains to be provided. The Church, which is of stone, has been built, from designs prepared by Mr. J. Lindley, of Hyde, by Messrs. S. Robinson and Son, also of Hyde. Its most striking feature is a stained-glass five-light window filling the east end of the Church, the gift of Captain Partington. The subjects are taken from the Old and New Testaments. The work has been carried out by Messrs. Swaine, Bourne, and Son, of Birmingham.

DUNS.—Berwickshire High School, which has been established at Duns by the Berwickshire County Council, was formally opened last week. The premises, formerly a residence, situated at the west end of Newtown Street, have been purchased and fitted up, at a total cost of upwards of £2,500, after designs by Mr. R. A. Bryden, Architect, Glasgow. On the ground floor are two Class Rooms, each fitted up for forty pupils; and on the second floor a Drawing-Class Room, to accommodate twenty pupils, and a Chemistry Room, with the necessary benches and apparatus for ten students.

SCARBOROUGH.—In order to push forward the Marine Drive round the foot of the Castle Hill to connect the North and South Bays, it has been decided to borrow an additional £10,000 over and above the £70,000 authorised by the local Act for the construction of the Drive. When the tenders were opened it was found that the lowest tender was £69,270, and as certain necessary work was not included in the specification it became plain that the sum of £70,000 specified in the private Bill would be insufficient, and further powers would have to be obtained. It is still intended that the contract shall be placed with Messrs. Cooke and Son, Battersea.

WEST MALVERN.—A special meeting of the Malvern Link District Council was held on Thursday for receiving the tenders for the West Malvern Sewage Works. The tender of Mr. G. Law, £4,625, was the lowest, and he was strongly recommended by Mr. Baldwin Latham, the engineer. Some members were in favour of Mr. Moffatt's tender being accepted, while others thought Mr. Law's tender should be accepted, and a good clerk of the works employed. After a desultory conversation as to the merits of the three persons whose tenders were the lowest, Mr. J. G. Bennett moved that the tender of Mr. Law be accepted. This was carried, and it was resolved to advertise for a clerk of the works.

LUNDY ISLAND.—A new Church has been erected, built of granite quarried on the island, with stone dressings to windows and doors, and the opening ceremony will take place next month. The building is lined with brick of three colours—red as a body, with buff and blue to relieve it. The Chancel rises two steps and the Altar two steps. The Choir stalls are of English oak as well as the reading desk. The Architect is Mr. John Norton, of London, and the contractors are Messrs. Button and Pickett, of Ilfracombe. The east window has been placed in the Chancel by Messrs. Clayton and Bell, of London. The reredos and statue of St. Helen is by Messrs. H. Hems and Son, of Exeter. The roof of the structure is covered with tiles from Tetbury, in Gloucestershire.

MANCHESTER.—At Knot Mill the new Station is well advanced towards completion. The main entrance is faced with dark-brown glazed bricks and a gold and brown dado, and there is a slight incline to an easy flight of steps, 15 ft. wide, which leads into the Booking Hall. A subway leads to the down platform. The platforms have been raised, widened and lengthened on the Deansgate side, where the Bridge has also been widened by steel girders to the extent of 80 ft. Lifts will be used to raise passengers' luggage from the Booking Hall to the different platforms. The platforms are partially roofed with steel and glazed. The buildings have been erected from designs by the joint engineers of the London and North-Western and Manchester, Sheffield and Lincolnshire Railway Companies (Messrs. Francis Stevenson and Alexander Ross), and the contractors for the work are Messrs. R. Neill and Sons.

PORT ERROLL.—The Directors of the Great North of Scotland Railway are about to erect an Hotel on a site about half a mile from the Railway Station. It is designed in the Baronial style of Architecture, and will be constructed throughout of Peterhead granite, with Kemnay granite dressings. The building consists of a large centre block of five stories, with two projecting wings at the back. The front elevation, which faces the south, and extends to 118 feet in length, will present a massive appearance. Its distinguishing feature is a Tower, rising some 80 feet above the ground floor level, having an embattled front, and flanked on each side with turrets. The east and west elevations, although possessing less multiplicity of detail, are still of imposing design. The plans have been prepared by the Company's Architect, Mr. J. J. Smith.

ORMSKIRK.—A Corn Exchange and News Room has been opened. At the present time considerable improvements are being carried out in Ormskirk, the present Lord Derby laying out new streets, and the local authority taking steps for the better development of the traffic of the town. Recently a number of old houses in the vicinity of the Parish Church were pulled down, and in several quarters commodious buildings have been erected. Mr. John Riding, Ormskirk, was the Architect, the chief contractors being Messrs. Chisnall and Constantine, Messrs. Whittle, Messrs. Riding and Son, Mr. Thomas Ball, Mr. J. J. Balmforth, Messrs. J. Ball and Co., and Mr. J. Bisset. The Corn Exchange and News Room are heated throughout with hot water, and afford about 3,000 feet of floor space, besides convenient Offices and Committee Rooms.

NEATH.—Another old landmark has disappeared in the Old Academy Buildings in order to allow new shops and premises to be erected on the site. The new buildings have already been commenced, and will form another Architectural feature in Neath. The façade will be of red and white stone, worked in alternate courses, the front being broken up into bays and projecting shafts, terminating at the roof with a large gable surmounted with a huge carved griffin. The whole of the work will be carried out in the best possible manner, great care and attention being paid to all the sanitary arrangements, which will include the latest improvements. The contract is let to Messrs. Gustavus Bros., of Swansea; and the work has been designed by Messrs. Wilson and Moxham, Swansea, who are also the Architects for the new buildings on the Parade, for the London and Provincial Bank, Limited.

EDINBURGH.—An enquiry was recently held with reference to the scheme proposed by the North British Railway Company for providing houses for the labouring class, in lieu of the labouring-class houses removed for the enlargement and improvement of the Waverley Station. The Company propose to erect ten tenements of houses. The number of new houses proposed to be erected is 120, as follows: houses of two apartments fronting St. John's Hill, 48; houses of two apartments fronting Pleasance, 26; houses of one apartment fronting internal courtyard with access from St. John's Hill, 44; houses of one apartment in Pleasance, 2. All the one-roomed houses are fitted for two beds. All the houses have Pantries, Coal Closets, and w.c.'s, except in the case of the one-roomed houses, which have a w.c. common to two houses. There are six common Bath Rooms provided for the houses, and eighteen common Wash Houses, with fixed earthenware tubs and clothes boilers.

BRIXTON.—The new Theatre was opened on Monday. The Foundation Stone was laid, it may be remembered, by Sir Henry Irving in 1894, but difficulties of various kinds have delayed the completion until some time later than was originally expected. The Architect is Mr. Frank Matcham, and the style French Renaissance of red brick with stone dressings. The site faces Brixton Oval and adjoins the Free Library. The entrance to Stalls, Dress Circle, and Boxes is from the front in Brixton Road, while the Pit and Gallery are reached from Ardville Road. The "exits" are numerous, and as the Theatre is practically isolated, it should rank as one of the safest in London. Inside, the principal staircase has decorative brass banisters or ornamentation. The general scheme of colour is cream and gold. The Stage is 38 ft. deep and 60 ft. wide. Electric light is installed throughout the building. The seating capacity is just 2,000.

BIRMINGHAM.—St. Stephen's Church was reopened last week after undergoing structural repairs with internal decoration. St. Stephen's is one of several Churches built half a century ago of a local soft red sandstone, which has been found unable to resist the action of the Birmingham air. Before the work of restoring St. Stephen's was taken in hand the Church was fast sinking into a ruinous state, and it became necessary to repair the buttresses on the south side, and to reface the west end. It was thought the wisest plan to case the whole Church with brick and terra-cotta, and this it is hoped to accomplish in time. So far, the buttresses mentioned and the western façade have alone been treated. The latter is remarkable for its great beauty and dignity, especially as regards its deeply recessed doorway, with a fine double-door having great hinges of hammered ironwork. When the present designs of the Architect, Mr. W. H. Bidlake, are carried out to completion, St. Stephen's will be one of the finest modern Churches in the Midlands.

A NEW Post Office has been erected at East Grinstead, and was recently opened by the Duke of Norfolk.

THERE is now being built at Chicago a Tower something after the pattern of the Eiffel Tower, but of larger proportions. The total height is 1,115 ft., and at the level of 225 ft. from the base there is a spacious platform; again at 450 ft. a floor 150 ft. square, and a third at 675 ft. From this point elevators travel to the landing at 1,000 ft., whence stairways lead to the top of the Tower. The cost is estimated at £800,000.

Trade and Craft.

WAGES OF THE BELGIAN ARTISAN.

At Ghent an Act was recently passed by the Municipal Council calling for the insertion in all its labour contracts of a minimum wage clause which, although referring only to Ghent, throws some light upon the customary wages throughout the country. In Brussels the rates are higher, but, on the other hand, in some provincial towns they are even lower than those paid in Ghent. The tariff fixed by the Municipal Council of that city is as follows:—Cabinet makers, 37 centimes per hour; carpenters, 37; bricklayers and masons, 34; bricklayers' labourers, 20; plasterers, 38; plasterers, labourers, 27; paviors, 42; paviors' labourers' 32; navvies, 32; slaters' labourers, 26; stonecutters, 38; glaziers, 37; house-painters, 32; plumbers, 34; ironworkers, 34; compositors, 40; printers, 40; dredgers, 47; dredgers' labourers, 32. The hours of Belgian workmen are long, and even with the low cost of living throughout the country, which is far cheaper than in England, the pay is not sufficient to keep the men in good health. This small wage for the men sends the women to the factories and workshops, and prevents the families from eating meat almost from one year's end to the other. Already the working man has accomplished a great deal. It was he who, in 1892, succeeded in bringing about a total reform in the suffrage system, and caused a Minister of Labour to be added to the Cabinet. Already have factory laws been passed since that date which protect the working man in many ways. Soon he will succeed in having the minimum wage law passed. It is evident that the Belgian workman, be he a docker or ordinary artisan and labourer, does not ask for or wish the interference of foreign labour leaders, more especially as several large undertakings are now under way, and work is abundant both for skilled and unskilled labour. The construction of the different new ports, the enormous railway station at Antwerp which is in course of construction, will all take several years to complete, and the Brussels Exhibition is likewise giving work to many.

CUXHAVEN DOCKS.

The new Docks which have just been inaugurated at Cuxhaven have been constructed at a cost of £350,000, the whole of this amount having been defrayed by the city of Hamburg. The river Elbe up to the great port is only to be kept in a navigable condition at a large and constant expenditure, and this, together with the fact that the demand for dock accommodation at Hamburg is making such rapid strides, renders it necessary that there should be further shipping facilities near the mouth of the river. This step made itself felt fully 20 years back, when Hamburg started various new lines to North and South America, Africa, Australia, and Eastern Asia. Six years ago the Senate of Hamburg, with the approval of the Town Council, decided to construct improved deep Docks at Cuxhaven. It was calculated at the outset that the work would be completed within three years, whereas, owing to unforeseen difficulties, the time occupied was five years. The total area of the new Docks at present amounts to 60,000 square mètres, but this can be enlarged and extended whenever it may be found necessary. The Depth of the docks is about 26 ft., below the average low-water level, and is, therefore, capable of accommodating the largest ocean-going vessels.

A NOVEL CASKET.

The casket in which the address to the Tsar from the municipality of Aberdeen is to be enclosed will be a fine piece of silver-work. The casket will be cylindrical in form, as being preferable to the conventional box type. The cylinder will be about ten inches in length and about two and a half inches in diameter. The ends will be left open, and thereby the vellum on which the address is to be illuminated will, when rolled up, be inserted. The ground of the casket will be polished silver. Round the ends there will run ornamentation of a leaf pattern. The shaft itself will be encircled by four bands. These bands will each be three-quarters of an inch in width, and will consist of pierced silver work of fine design, the polished silver ground showing through the apertures. Midway between the ends of the cylinder will be a circular piece of ornamentation. The feature of this will be a representation of the arms of the city. Underneath will be two Scotch thistles crossed and running up the sides of the ornaments. To one end will be attached the city seal by means of a ribbon. The casket has been designed by Messrs. G. Jamieson and Son, jewellers, Aberdeen, and the whole of the work is being executed on their premises.

MESSRS. SHANKS AND CO.

At the Health Exhibition, held in connection with the Sanitary Congress at Newcastle, a Bronze Medal was awarded this firm for their Fin de Siecle Bath, the particular feature of which is the quick discharge and thoroughly sanitary arrangement of the waste. They also received a Bronze Medal for their Patent Improved Glazed-back Urinals, and their Barrhead Syphonic Closet has been selected by the judges for further practical trial, as also has their Patent Automatic Water Heater.

A NEW DOCK.

It has long been a reproach to the Clyde that there is no adequate graving dock on that river, notwithstanding the fact that the largest of our Atlantic liners have been built on the banks of that river. Now, however, the Clyde Trustees have recognised this drawback, and are constructing a new Graving Dock, which, when opened, will be only second in size to that which is being built by the Mersey Dock Board at Liverpool. It will be called the Cessnock Graving Dock, and is 900 ft. long—the same length as the new Liverpool Dock—but the dimensions of the Mersey Dock in other respects are considerably larger.

NEW ROADS IN THE FOREST OF DEAN.

A commitee meeting of the members of the East Dean Rural District Council, Mr. Arnold Thomas presiding, was recently held to consider the routes to be determined upon in respect of the proposed new roads which the Office of Woods have consented to construct in the Forest at the instance of the local authority. A draft plan was submitted and accepted, in every instance, except that with respect to Ruardean Hill, to which exception was general, and another route was recommended. The proposed roads and the cost of construction are scheduled as follows:—Joy's Green, £1,200; Pope's Hill, £1,450; Ruardean Hill, £1,950; Bilson Road, £360; Station Road (Cinderford), £900; Blakeney, £550—total, £6,500.

ALTERATIONS OF CONTRACT.

Seventy unionists have been fined at Rotherham. The case was a simple one, involving no disputed principle. The defendants were in the employment of Messrs. Wright and Co., Burton Weir Stove-grate Works, and were charged with breach of contract. The company appears to have altered the terms of a contract with the men, whereupon the latter, refusing to sanction the alteration, left work. A deputation of four workmen afterwards waited upon Messrs. Wright, and had an interview which lasted three hours, and the whole of the grievances were discussed. The outcome of the interview was that an arrangement was come to by which the men agreed to resume work on the old rules of 1890 on Monday, and the new rules have been withdrawn. A mass meeting of the workmen was held, when the deputation made their report, and the terms were accepted unanimously. The speakers also expressed the good feeling which had hitherto existed between the employes and the firm, and special allusion was made to the senior partner, Mr. G. W. Chambers. The strike began on September 2nd, and although there was an attempt to settle the dispute at the time, it failed.

STATE OF TRADE IN THE WEST.

For all classes the "Labour Gazette" for September contains a great deal of information of an industrial character as concerning the West of England. Upon the various features of the principal trades Mr. J. Welland contributes a comprehensive summary as affecting changes. We find from his official statement through the Labour Department of the Board of Trade, that whilst in Cornwall employment in metal-mining exhibits no improvement, the china clay-workers and quarrymen continue to be well employed. Another good sign of trade revival is shown in the statement that there is no compulsory idleness amongst operatives in the engineering and kindred trades, such as ironfounders, boilermakers, brassfounders, smiths, and wheelwrights, of whom in Plymouth and the South-Western district over fourteen hundred men are employed. Another favourable sign is revealed in the building trades report. It is stated that the South-Western branches of masons, builders, plasterers, carpenters and plumbers, with over two thousand members—we presume these figures relate to affiliated societies for trade union purposes—show only nine men as on the "unemployed list" during September. Amongst painters in Plymouth employment shows a decline; and at Torquay the state of that branch is decidedly bad, though, on the other hand, builders' labourers continue well occupied. It is only reasonable to presume that now the summer is virtually over a certain class of painting and house decorating is at an end. This, no doubt, accounts for the drop in the general employment of painters and decorators which characterises that branch every year.

SOME OLD WATER PIPES.

During the past week new mains have been laid in Piccadilly, and some very old wooden pipes were removed. These pipes were made from the trunks of trees, and averaged between 5 and 6 feet in length, being about 18 inches in diameter at the largest end and 9 inches to 1 foot at the smaller end. The bore appeared to be about 6 inches. They probably belonged to the old Chelsea Waterworks. In the times of the Stuarts there were in Hyde Park a number of pools, to the number of eleven or twelve, all communicating with one another. They were fed by a small stream, the West Bourne, which, rising on the western slope of Hampstead, passed through Kilburn and Bayswater, and then intersected the Park, which it quitted at Knightsbridge on its way to join the Thames al Millbank and Chelsea. These pools used to supply the western parts of London with water until a complaint was made that so much was drained away that it left none for the deer. These were probably afterwards the source of the circular reservoir which is to be found in old maps of Hyde Park (about 1737), and which belonged to the old Chelsea Waterworks. From it, along the pipes now brought up in Piccadilly, were supplied not only Kensington Palace and the "suburb" of Piccadilly, but also the new buildings about Oliver's Mount (now Mount Street) and the northern parts of Westminster. The machinery used for forcing the water was at that time so primitive that the water had to be conveyed to the houses on the high ground near Grosvenor Square by means of a mill turned by horses. The licenses of the old Chelsea Waterworks Company terminated towards the end of the reign of William IV., when the engine-house opposite Grosvenor Gate was taken down. The pipes were laid at a depth of about 3 ft.

Correspondence.

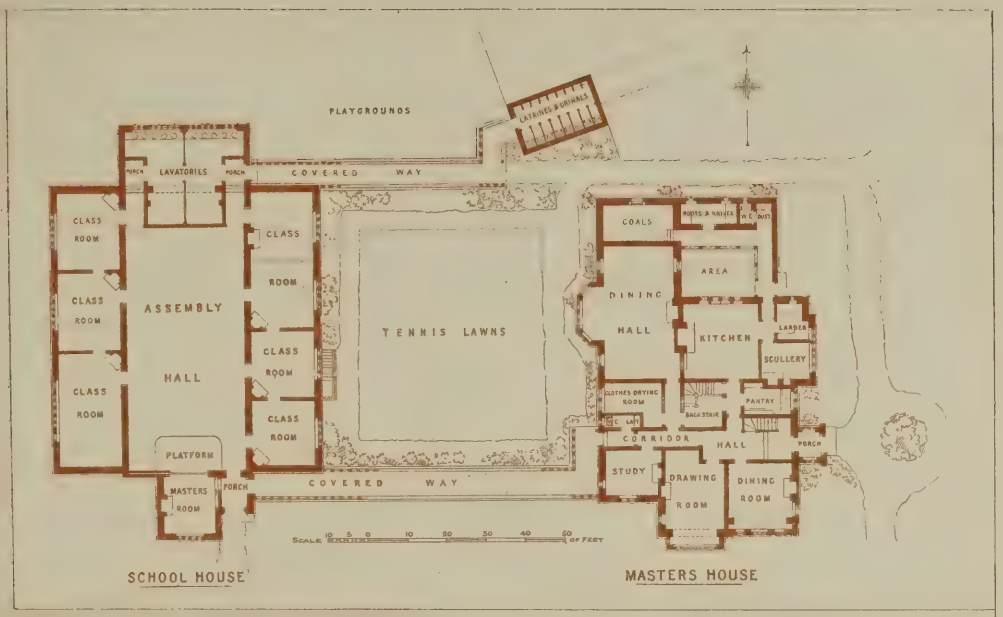
IN reply to the letter of "A. B. C.," Croydon, we think the suggestion as to more attention to students, is already being met by the introduction of a series of articles on the South Kensington Museum and its facilities for Students. The more solid and technical side of structural matters will also shortly be considered. With regard to our new monthly magazine, "The Architectural Review," the first number will be issued in October, and specimen copies may be had on application by letter to the Publisher. —ED.

THE Commissioners of Northern Lighthouses, it is said, have approved of the erection of a new Lighthouse and Fog-signal Station at Blackhead, about three miles north of Portpatrick Harbour, on the west coast of the Irish Channel.

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The Builders' Journal

AND

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ILLUSTRATIONS.

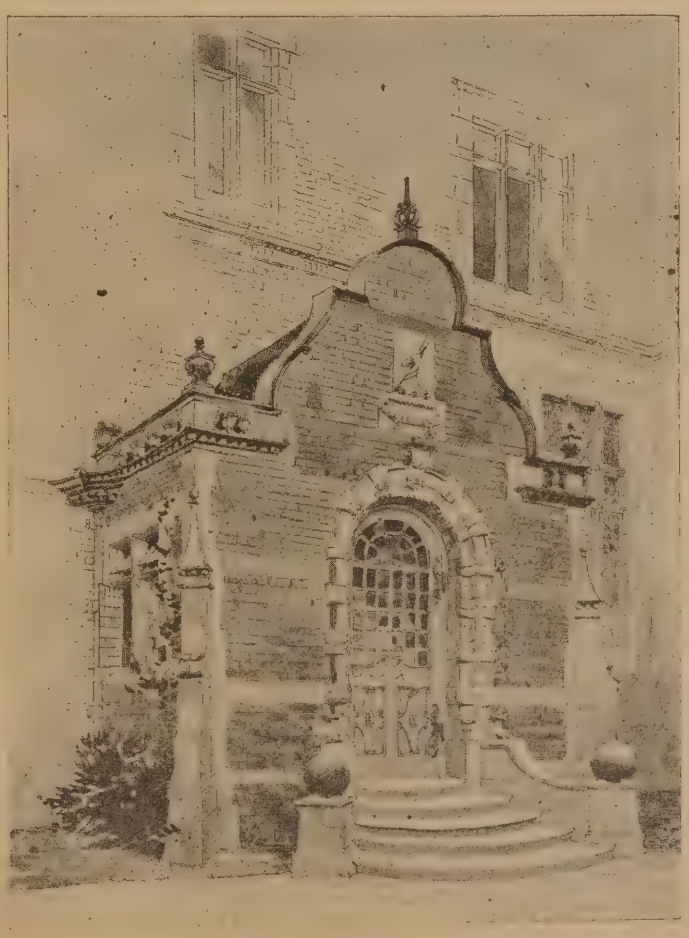
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The Study of our own Land.

Is there room in the cast-iron curriculum of the Education Department for a suggestion? The suggestion is inspired by a remark of Professor John Rhys at the recent meeting of the Cambrian Archæological Association. Professor Rhys, dealing with the utter lack of instruction in national Archæology, called attention to the action of the House of Keys, in the Isle of Man, wherein it had gone forth as an order that in all the schools a diagram shall be suspended showing all the most common types of antiquities likely to be found in the Island, explaining their use, and giving such information about the law of treasure-trove as would prevent the concealment of discoveries of ancient relics. We would recommend this, as a suggestion, for the serious consideration of the Education Department. If there is one subject more than another upon which the Board School or Voluntary School child is hopelessly ignorant, it is that of Topography and Archæology. It is notorious that while the malformed little mentality of our cheap schools can rotate you the usual formulas:—"Manchester for cotton goods; Bradford and Halifax for woollen goods; Birmingham for hardware" (you may hear the screech through Board School windows on any day in the year should the ventilators happen to be open), with the utmost glibness it is completely plucked by any inquiry as to the localities of these very considerable cities. It is the same with the history of the country. The dry bones of many battles, the regnant succession of Kings and Queens, with a saturated course of Treaties, are the ingredients in the historic dish. What know these "super-educated" children of the Monastic Movements; of England's magnificent building period; of the great families of Feudalism, of the Architects, the Painters, the Sculptors, the Smiths, whose work has been the Art expression of the land! We have been told on good authority that the authenticated instruction books for Board Schools do not even contain a reference to Sir Joshua, and that Wren is dismissed as "the Architect of St. Paul's." What Art appreciation is to be expected from such sawdust? For all that, Free-hand Drawing forms part of the curriculum, and dabs in colour, and some flinging of clay. Why not suggest that a poet attempt poems, being deprived, at the same time, of words, or that an Architect rely upon king-posts and air? The whole Art training of this country—especially in the Preparatory Schools—is so absurd as to be serious. No man can express the indigenous emotion or expression of his native land unless he be steeped in its history, learned in its antiquity beaten by the countless storms that have weathered its face, roused by the roll of the drum of the nation. The National Expression of Arts—that cornet which everyone blows—can only be taught by the proper emphasis of the Past, and we must not expect from the rising generation any individuality in Design, any originality of Thought, unless its habit of mind is brought more into sympathy with Antiquity. The Archæological and Antiquarian records of Britain are inexhaustible sources of inspiration; neither legend nor mythology wanting; and we do suggest that the lore of English lanes would provide more fertile material for the impressionable mind of childhood than an early defeat over French verbs or the struggle to learn Musical Notation. A great field is opening for the working craftsman, but he must be something of an artist, not a dull dog of beer and bed. Youth has always an innate love of Romance, from which much Imaginative work may spring; why not, then, take a leaf out of the Book of Man?



ENTRANCE PORCH, THE ELMS, ROEHAMPTON: W. H. SETH-SMITH, F.R.I.B.A., ARCHITECT.

A MUSEUM OF LONDON CURIOS.

IN the course of modern improvements many relics of Old London have been utterly destroyed and broken up to make road-metal. Others, however, although vanished from the Londoner, are still in existence. There used, for instance, to stand in the midst of Seven Dials a pillar bearing seven sundials, which, indeed, gave this locality its name. Many years ago this stone pillar was removed, and found a resting-place on Weybridge Common, where it may still be seen. But at the little seaside place of Swanage, in Dorsetshire, may be seen all the unconsidered trifles that in the course of business found their way into Messrs. Mowlem and Burt's, the contractors, yard at Westminster, which ornament—more or less—the streets and quays of the town. Swanage has thus become a veritable museum of London curios, first among which is the front of the Town Hall, which was at one time the entrance to Mercer's Hall, Cheapside, pulled down a few years ago. Fronting one of the old houses in the town is a Roman tesselated pavement, found at a depth of 20 ft., near the Mansion House, and near by are two stone urns from one of Sir Christopher Wren's City churches—that of St. Mary Somerset, Upper Thames Street, pulled down, with the exception of its tower, in 1870. A stone column from the Borough acts as a finger-post outside the town; while, within it, the street lamp-posts are seen to have hailed at different times from the City, from Marylebone, Westminster, and St. Giles's. Prominent among the things is a Gothic clock-tower of stone, which now ornaments the neighbourhood of Swanage Pier. This was at one time one of the many memorials to the great Duke of Wellington, and stood, until about 35 years ago, on the south side of London Bridge. When the roadway was widened at that point the people of Southwark gave it to Mr. Mowlem. The stones of Old London Bridge, too, have had many wanderings, and have been put to widely different uses. Some of them went to build Ingress Castle, near Gravesend; while others were used to build Warden Church, in the Isle of Sheppey. One of the City churches—that of St. Mildred-in-the-Poultry—was pulled down some years since, and its materials sold by auction, to be purchased by a Lincolnshire squire, and re-erected as a private chapel on his estate. The site occupied by Old Temple Bar—which serves as an entrance-lodge to Lady Meux's place at Theobalds, near Cheshunt—is well-known; while, in conclusion, may be mentioned the famous statue of the Duke of Wellington that once crowned the archway at Hyde Park Corner, but is now banished to Aldershot.

OLD LONDON.

BY DR. PHENÉ, F.S.A.*

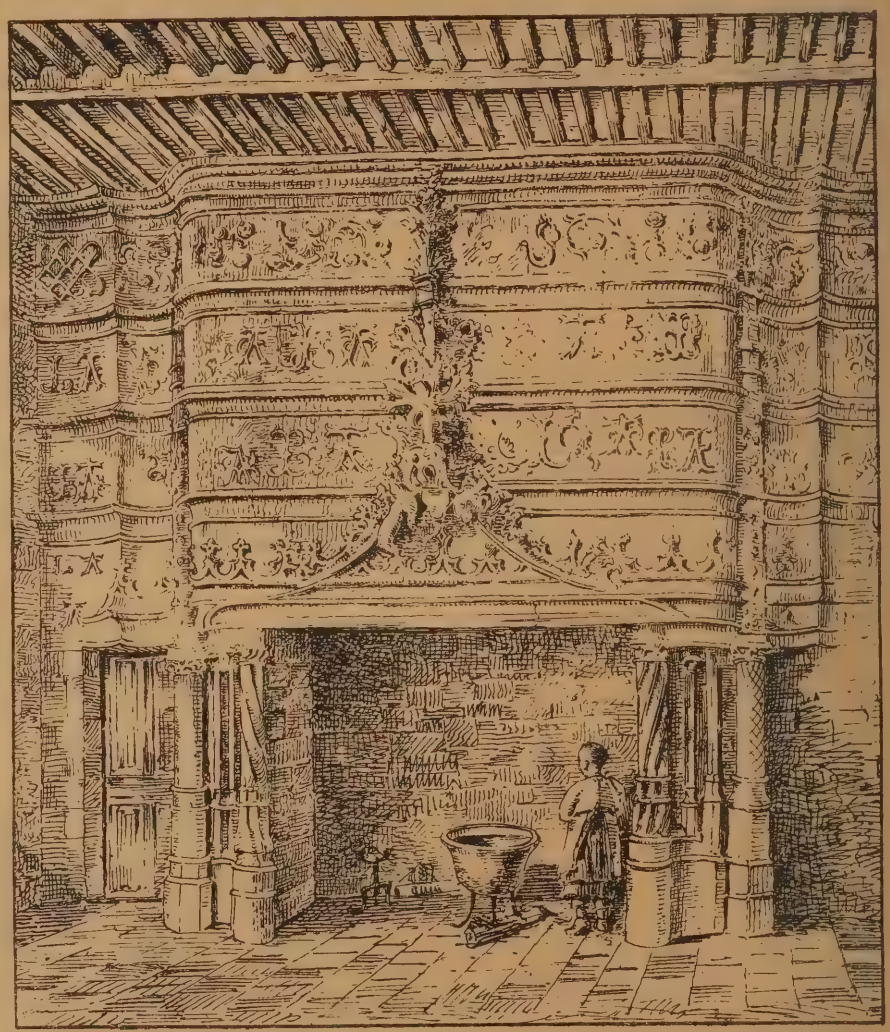
FROM references to Cæsar, Pliny, Strabo, Tacitus, it would seem that the great roads of commerce, usually called Roman ways, must have existed long prior to the Roman invasion. The principal proof of this was that Cæsar refers to *the well-known roads and ways*. This is supported by reference to the commercial traffic, which must have been considerable; the large trading fleets mentioned by Cæsar as being in the Rhine, Seine, and other rivers of the Continent; the corresponding roads of traffic south of the Channel, still recognised by French *savants*, and the exchange of metal for foreign imports. A comparison drawn between the dwellings of the citizens of pre-Roman London, those of the Gauls, and also those in Rome, renders Cæsar's description of the houses in Britain very emphatic. The derivations of the names of the great roads in Britain were doubtless Greek in origin, as "Ic-nield," from the Greek word *ichnos*, a way, &c. The ford passed over by Cæsar would probably be at Chelsea, from such a ford having been found on repeated surveys at that place. This is supported from evidences of a large number of

ROMAN AND NATIVE ARMS

and armour found from time to time at that ford, and also from many crania of opposite types, deeply blackened by long deposit in the mud of the Thames, discovered in making the Chelsea suspension bridge. The native method of fording at *low tide*, as described in the transit of tin in the south-west, still maintained between Alderney and France, would enable the Romans to pass over at so short a distance from London; and the Greek word *bastazo*, a raised way (causeway), and with the "s" mutative, pronounced "battaso," is suggestive as the origin of the name Battersea, the low level at which place made a causeway necessary. On Cæsar's crossing the ford, the surrender of the capital followed at once, and that of the adjoining states, and of the General-in-Chief followed, the capital being occupied by the Roman forces. The late Mr. Roach Smith's discoveries of the Roman river wall, in which were built architectural sculptured columns, friezes, cornices, &c., show that old as the wall was, it was built with materials of pre-existing decorated stone buildings. A similar discovery on the site of part of the present Liberal Club, near Whitehall, was made by myself. The old portion of the whole corresponding with Mr Roach Smith's discovery of the

ROMAN RIVER WALL.

Some of the blocks of sandstone and schist removed by him were nearly half a ton in weight, and the cost being great (the cartage alone costing £150), he left behind many vast blocks of sandstone about 9 ft. long, which were subsequently used in the foundations of the Liberal Club. On preparing this paper on Old London, the details of Mr. Roach Smith's discoveries came under my notice; from them great interest attaches to these relics. Drawings were made before the removal of the base of the structure, the dimensions of which appeared to have been a solid square of 20 ft., and about 5 ft. in height, but from stray blocks found on excavating, it may have been much higher. There were three distinct styles of erection and materials above this base, one over the other, the most modern being of fifteenth century masonry. Specimens of the Roman



OLD CHIMNEY PIECE, CHATEAU DE LOSSE, DORDOGNE, FRANCE: SKETCHED BY W. H. SETH-SMITH.

latter building was purchased and removed to make way for the Club. After reducing a massive stone wall to about 16 ft. below the surface, a structure built of large blocks of schist and sandstone was reached. On applying at the Government office it was found that the whole construction was included in the purchase, and seeing the

GREAT ANTIQUITY OF THE MASONRY

and the consequent interest attaching to it, large sums were spent on the careful separation of each block, which carried the excavations down below 20 ft., and considerably under high-water mark. The upper part of this structure was restored to prepare for a subsequent erection, and within the external faces of a thick wall had been placed, with a number of Roman bricks, a quantity of delicately-carved architectural enrichments, sculptured in the same hard, close-grained sandstone as that composing the base of the structure, the bricks, sandstone carvings, and schist, with the different kinds of mortars still adhering to each, varying from the hardness of cement to ordinary mortar, may still be seen. A Roman pagan temple is traditionally said to have been at Westminster, and the discoverer, not unnaturally, assumes the relics are portions of its remains.

* Read at the Congress of the British Archæological Association.

THE Great Western Railway has decided to spend about £5,000 in improving the Newport Station. The contract will be let forthwith. The chief improvement will be on the "down side," where an independent luggage entrance for the Western Valleys, near the bottom of the foot-bridge steps, will be made. On the "up side" a booking office will be erected, and a telegraph-office, cloak-room, and increased waiting-room and lavatory accommodation will also be provided.

NOTICE.

In October will be issued from the Office of "THE BUILDERS' JOURNAL,"

THE ARCHITECTURAL REVIEW,

a Monthly Magazine for the Architect, Artist, Designer, and Craftsman.

The Magazine will consist of 56 *pages of Letter-press with numerous Illustrations.*

THE PRICE WILL BE SIXPENCE.

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TALBOT HOUSE,
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THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

MEN WHO BUILD.

No. 46.

MR. W. H. SETH-SMITH.

IN his very charming room with its glimpse of green—in Lincoln's Inn Fields—Mr. Seth-Smith and the writer chatted while the clock hurried us to the stroke of an autumn holiday. No stroke, unless it be that of Good Fortune, is more significant than that. A holiday has so many reverberations that you cannot easily hear anything but the tinkling of kine bells on the lower slopes of the Simplon, or the St. Gothard, or the incessant Angelus of Brittany, or the carillons of Flanders. But the oak chairs of Lincoln's Inn Fields goaded us into sensibility, and with many of Mr. Seth-Smith's well-known perspectives on the walls, one managed to realise that "*we* are such things as dreams are made of"—and occasionally—but how rarely!—*houses*, too.

The son of an Architect, Mr. Seth-Smith had early the atmosphere of building about him even before he was articled to Messrs. Habershon and Pite. How much depends, in the way of our enthusiasms, upon first and childish impressions. It has been said, by Lombroso, I think, that no man ever becomes what was impossible in the child. And it is singular that proclivity and tendency and professional prestige may be developed, but enthusiasms cannot be induced. They are not atmospheric in all senses; they are the air we breathe, not the steam we generate.

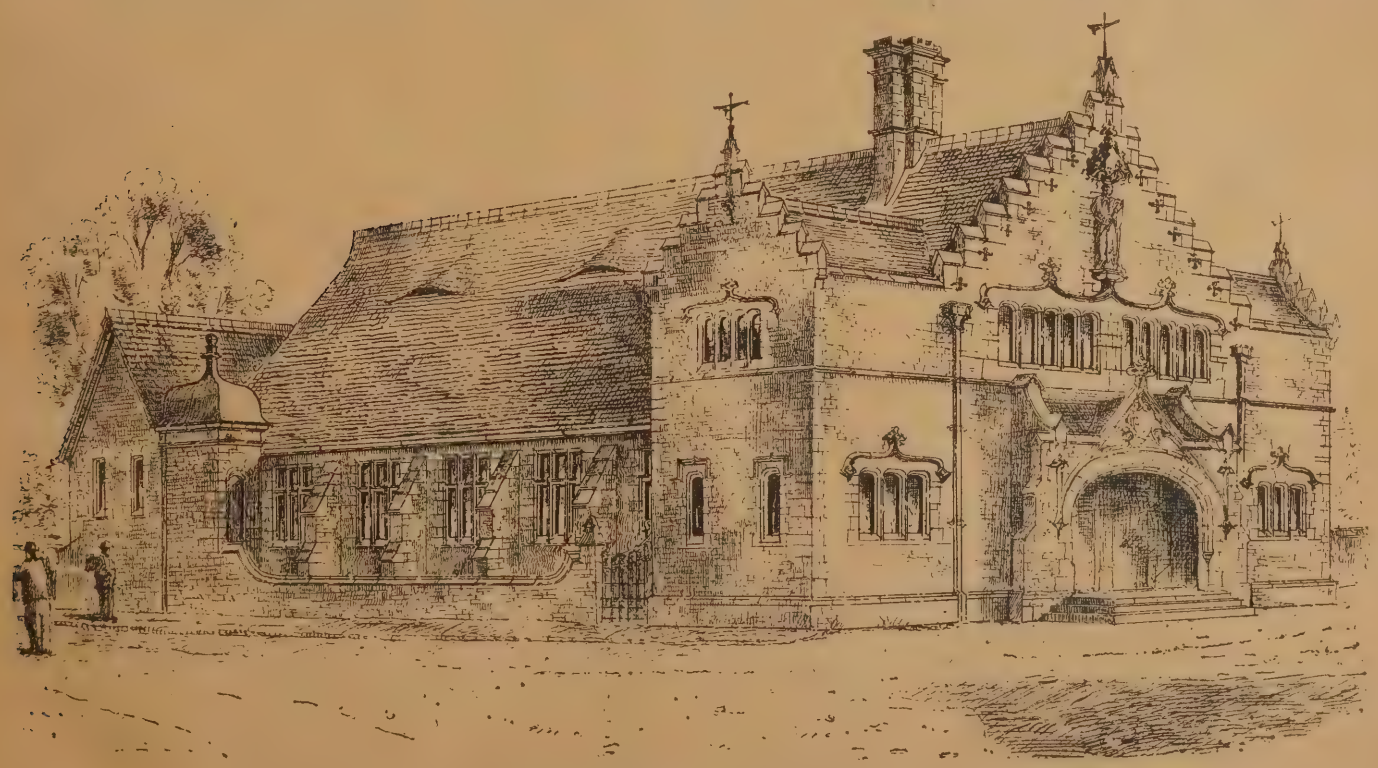
"I attribute," said Mr. Seth-Smith, "what enthusiasm I have for Beauty in Design chiefly to my association with artists, travels and study on the Continent, and to perpetual drawing and sketching of existing buildings, both old and new, and I strongly advocate the study of the best new work as quite as important as classical, if not more so.

"It seems to me of the first importance, however, to encourage the study of the best mediæval architecture rather than Greek, Roman, or Renaissance, for the obvious reason that its spirit is that of our own latitude, climate, race, religion, and social instincts. The word 'Freedom' sums up the principal characteristics of the Gothic



work, and one may fairly tremble for the future of British Architects if the present tendency of our Art Schools is continued, namely, that of ignoring if not condemning the study of Gothic design. It can only be as we plan and design with the unfettered spirit of a Gothic Architect of old that we can progress. We shall then be free to adopt and assimilate all kinds of details and achieve real interest and real beauty.

"But to my mind the subject of the general education and welding together of the Profession eclipses all others in importance and urgency, and in its settlement lies



NEW TOWN HALL, LYDNEY, GLOUCESTERSHIRE: W. H. SETH-SMITH, F.R.I.B.A., ARCHITECT.

the solution of nearly all our greatest grievances. 'Registration,' as we all know, is merely the book-keeping of the business; education is everything. Well grounded and systematic training, such as the Architectural Association has undertaken, only making it compulsory instead of optional. There are two or three cardinal arguments in favour of this great movement which, if grasped, it seems to me are strong enough to convince any unbiassed mind of its necessity.

"First of all Architecture is the Art of beautiful building (whether we, the Professors of Architecture, call ourselves a Profession or a Craft, or what not, matters not a rap).

"Secondly, that the general public know very little about Art, and care less, but they do know and care very much about building, construction, and planning, upon which our Art rests. There can be no two opinions that an Architect's most responsible functions are to plan skilfully, and construct and sanitate safely. His appointment in 99 out of 100 cases is to this end. It follows, therefore, that if we want our Art to prosper we must at all costs secure the confidence of the public in our competence as constructors and planners.

"Without such a training, both in the theory and practice of building, such competence and skill is impossible, and simply because a large portion of those styling themselves Architects have proved themselves incompetent to plan and to build, and others incompetent to design, a *beautiful* building, the public have not a respect for us as a body of Professional men, and hence our Art (surely the noblest!) has never been popular in England. It certainly never will flourish until it becomes popular."

We were so entirely in agreement, on this last count, that I was sorry to cast, perhaps, a somewhat feeble shadow on the Gothic arch. Here was a very bold theory, surely: Gothic conjugated in the Verb To Be. What of all the talk of the Gothic, the Ecclesiastic note, having passed away? What, too, of the debased, draggle-tailed, starved suburban Gothic of modern churches and chapels: the irreligiousness of a denuded and commercially cheapened style; the windows of beggarly tracery, the dwarfed arches, the squat Tower—"with a spire to add"—ending in a spirelet of the size of a marling-spike, and the roof-line "broken" by a "Gothic" ventilator in metal; the interior effect "enriched" by tinted "cathedral glass"? Was this "Freedom"—the unfettered spirit of Gothic Architecture?

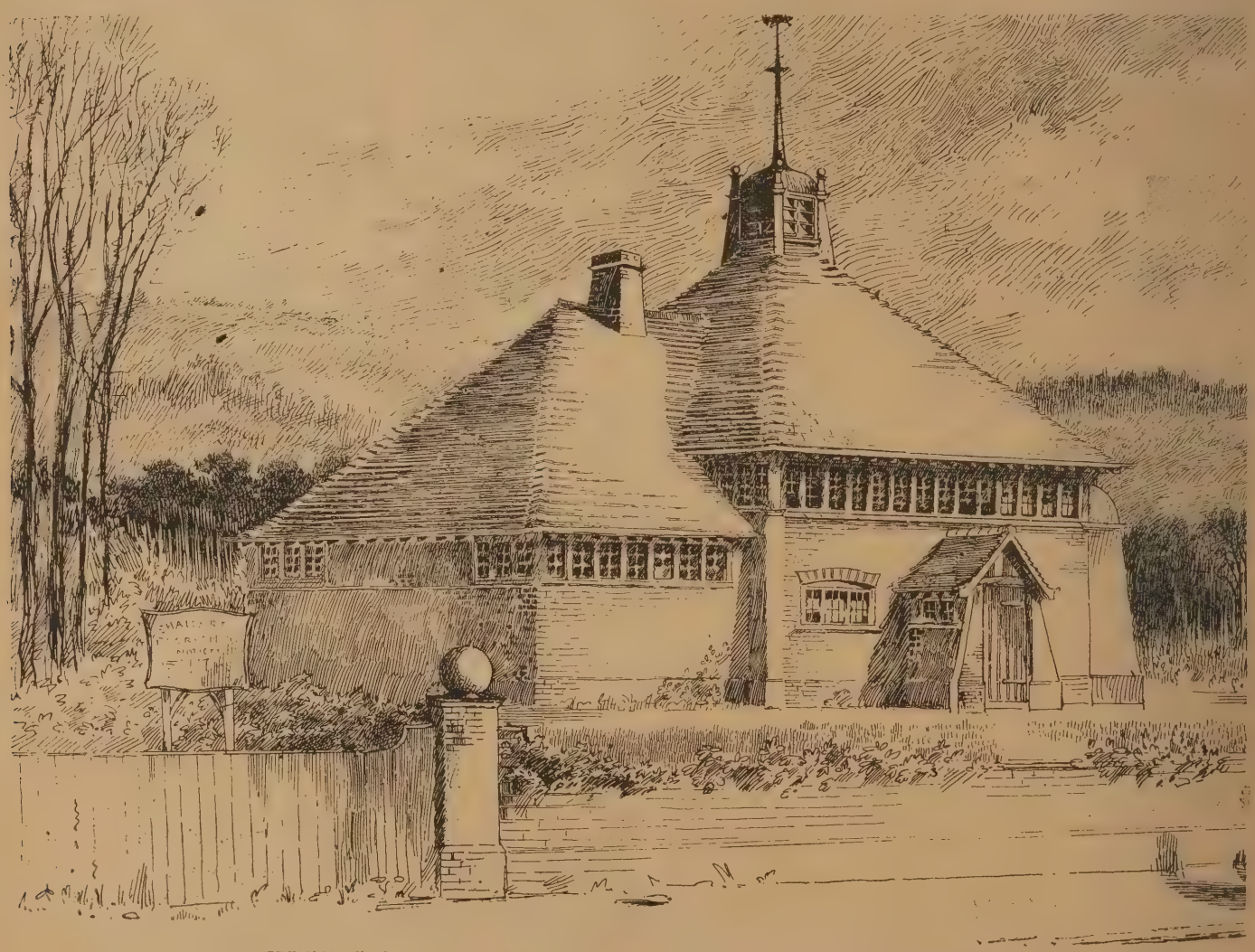
We laughed, mutually, and Mr. Seth-Smith's answer was very simple: "It *isn't* Gothic; it isn't worthy of that or any other name.

"But for this lack of popularity for Architecture, the fault lies, clearly, with ourselves, and not with the public, and there is no remedy other than excluding from those using the title of Professional Architect such persons as have not had a proper training. The health and purse of the public are so dependent on the reasonable competence of all Architects, that it seems to me that no further argument is needed in advocating legislation.

"If the Institute objects to 'Registration' of all now in practice, it is quite practicable to obtain an Act merely registering those who have passed the tests successfully, in fact, extending the R.I.B.A. Examinations, and confirming its principle of 'Registration.'

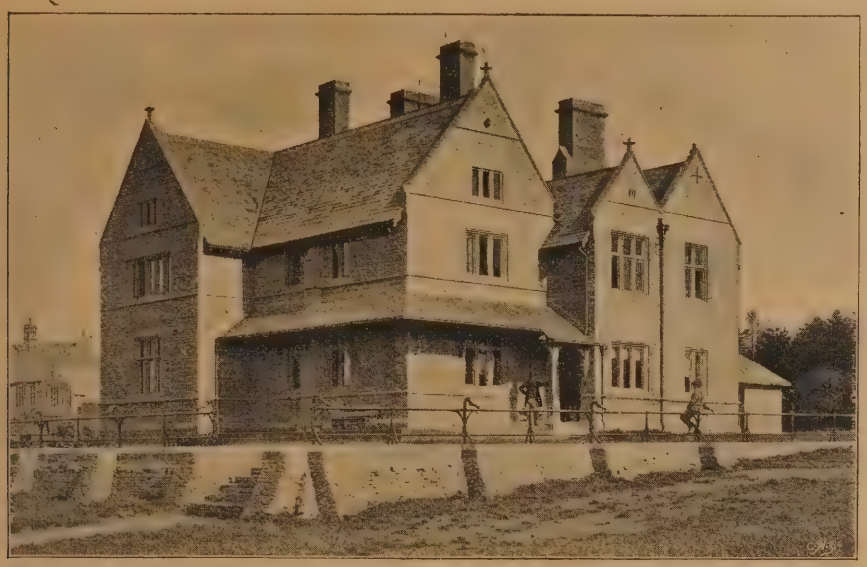
"That the Royal Institute of British Architects has realised all this and given practical application to its convictions in establishing compulsory examination for its own membership, is a grand step in the right direction. If such measures as are needed to effect this involve injury to Art, things had far better remain as they are, but I am convinced that they would, on the contrary, result in great improvements in the Art of Architecture, provided that the Institute is wise enough to secure to herself, as she has still the opportunity of doing, the control of the courses and the nature of the tests thereof to be applied. The importance of the Curriculum and the Examinations remaining in the hands of the Architects themselves can hardly be exaggerated, and it cannot be too strongly urged that, at the present moment, the Institute is the sole examining body, and probably can, if she will, secure that privilege by Act of Parliament.

"It may be well to remark here in respect to the all-important point of the Test of Ability to Design—as Mr. Brydon said in his recent speech on the Fellowship question—that it may be fairly admitted that a Council of about 15 experienced Architects, representing all shades of Style, professional practice, and opinion, are not likely to misjudge the qualifications of a man as to design. This applies to both Students and Fellows. Very naturally the solution of the R.I.B.A. Fellowship question follows that of a general systematic training of all who aspire to our Craft. The 'Registration' of a man as having successfully passed such tests of study as the Institute may



GRESHAMBURY INSTITUTE, CHILWORTH, SURREY: W. H. SETH-SMITH, ARCHITECT.

impose should not carry with it the right of Fellowship of the R.I.B.A., for the reason, so well urged by the 'Memorialists,' that the passing through an Examination does not necessarily prove a man morally or professionally to be a good or successful Architect, although a properly regulated Examination constitutes by general consent the one guarantee the public have a right to demand, namely, that those who profess to advise them have well studied their subject.



SCHOOLS, WEST OF ENGLAND: W. H. SETH-SMITH, ARCHITECT.

"Fellowship should be the proud distinction granted by the R.I.B.A. to those who have, under the only infallible test of experience in actual building practice, proved themselves to be capable Architects: priests in whose hands the sacred Lamp of Art will suffer no desecration. As regards the present system of Examinations, I hold that the professional teachers should be much better represented on the Board of Examiners, and that the Examiners should be more largely selected from those who have themselves passed their Examinations. Another improvement which it seems to me only an Architect's Education Act could effect would be the due payment of Examiners for such highly responsible work. I am also an advocate for excluding from the Examinations all subjects (such as land surveying and quantities) which are not essential for every Architect to know, and for making the tests in the science subjects as simple as is consistent with the absolutely indispensable technical acquirements. Any extra subjects a man may find himself in need of in view of his practice he can easily get coached in elsewhere.

"As to draughtsmanship, I believe that an Architect's success will be proportional to his combination of the three qualities: (1) Imagination, (2) Skill in drawing, (3) His refinement of taste in form. A man who cannot convey his ideas to his assistant by means of rapid and intelligible sketches, perspective and otherwise, cannot acquire a large practice and at the same time keep up the quality of his design. A sensitive discrimination of the Beautiful in Form is undoubtedly and infinitely the most essential factor in Architecture, for the reason that without it a conjunction of the most fertile imagination and a wonderful dexterity of hand results in failure.

"It must not be forgotten that an Architect with a good practice cannot, if he give the requisite time to his all-important details generally, make his own finished perspective drawings for illustration or exhibition, and that it is only fair to his work that it should not suffer from hasty, inexperienced, or coarse draughtsmanship, that in a large majority of cases photographs which convey a fair impression of the merit of the Design, cannot be obtained even if they could be admitted into our Art Exhibitions, and that there is no other way of informing the building public as to the best works of Architecture being built throughout the country year by year than by sending such drawings to the Academy or to similar Exhibitions, where experts in Architecture have the selection of those which are most worthy of a place. That more space should be given by the Academy, and a larger body of judges should be arranged, goes without saying, and I further consider that some evidence should be forthcoming that the designs are those of the exhibitor."

It may be as well to set forth here Mr. Seth-Smith's views of the qualification of the Architect, and of the danger in the Gospel—if we may so describe it without irreverence—of All Soul. "Failing the Art qualification," says he, "a person has no right to the title of Architect. Those who oppose the establishment of examinations have, in their efforts to emphasise an important truth, lost sight of the first and foremost principle which regulates architectural employment, the principle, namely, that our opportunities of practice are dependent upon the confidence of the public in our qualifications. But enthusiasm for the Art side of our calling is fascinating and contagious, and this fascination is so irresistibly felt by many young students and budding Architects, who have not the ballast of an average professional experience, that it constitutes a very real danger to the future of Architecture; for let us remember:—1. That a man is not necessarily any the worse designer because he is an accomplished constructor. 2. That we cannot regulate the training of the profession generally on the lines of experience of a dozen exceptionally able men who have attained distinction (in spite, perhaps, of an imperfect training in constructive and sanitary science) by the sheer force of their originality and skill as designers; it is absurd to say that such men would have been excluded by the proposed tests; we must deal, as in all other professions, with the average man, and establish a curriculum which will raise the standard of the craft generally.

"Who are the men who obtain the largest practice? Obviously those who combine with considerable artistic ability exceptional technical knowledge and capacity for the multifarious business of which every Architect's practice is, and must ever be, largely composed. But very many men whose works declare them to be absolutely devoid of taste or power to design, manage to obtain and uphold a good practice. Why? For the simple reason that every client can recognise business and constructional ability, but comparatively few can discriminate between good and bad design; hence the great importance of an Art test as a qualification to practice, if our British Architecture is to make progress.



STEAM BAKERY AND WORKSHOPS, WEST OF ENGLAND: W. H. SETH-SMITH, ARCHITECT

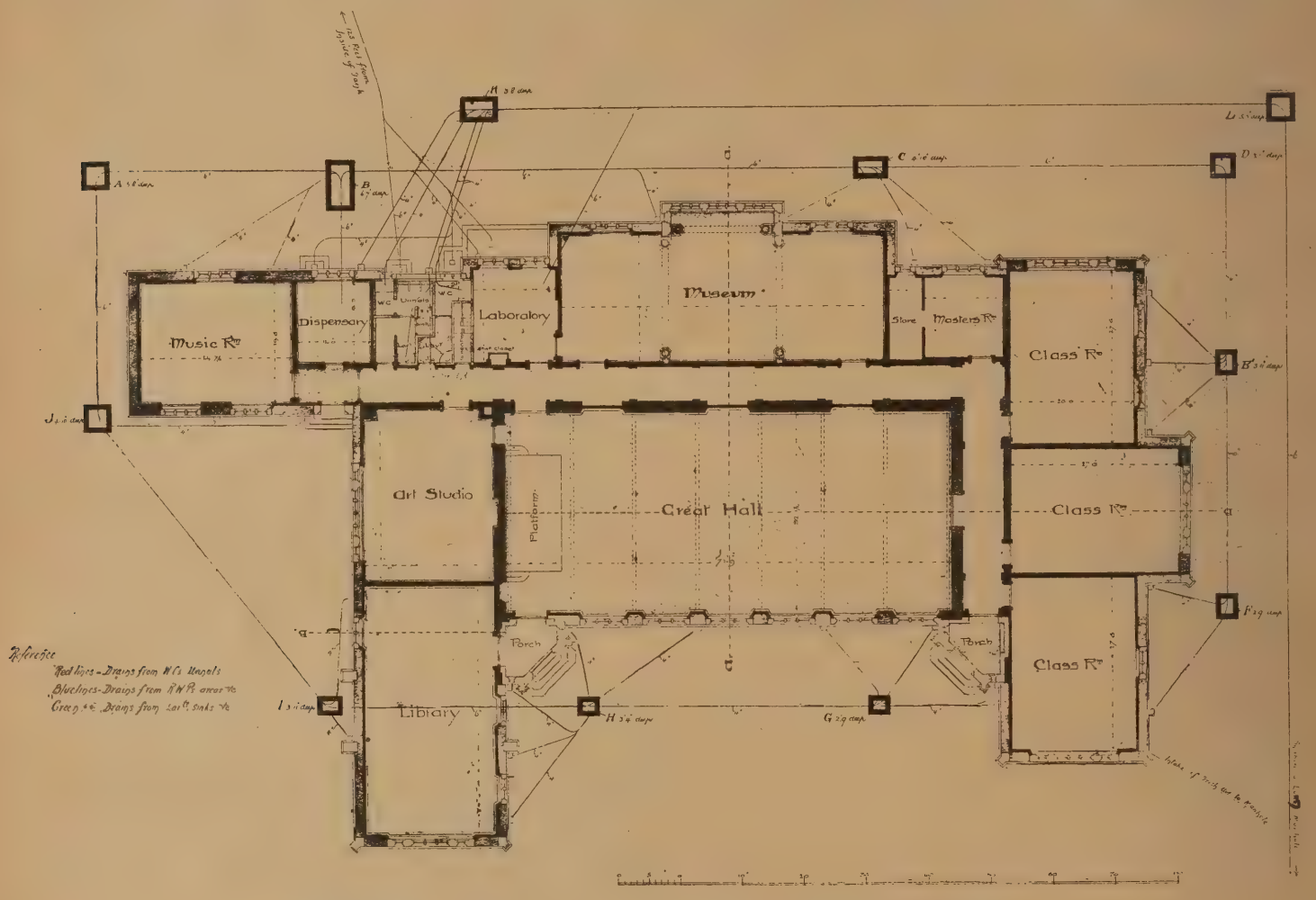
"Once satisfy the public that we are competent to supervise all branches of the building trade, and in other matters of business in connection with contracts, and building regulations, to safeguard their interest, and you have at once created a basis of employment in which your Art acquirements will find their proper opportunities. I submit most emphatically that if both taste and its expression can be tested sufficiently to qualify for the Royal Academy, and other Art Schools, they can surely be tested well enough for architectural practice, and to prevent in the near future the costly disappointments in Design which have had almost as much to do with the existing discredit and suspicion in which the Profession is frequently held, as has the want of scientific training. An Architect may have noble ideas and a sense of beauty which may lead to his employment, but if he lack sufficient skill to convey his ideas to the mason and the carver, the most costly features in his work will be a disgraceful and standing failure—in other words, the Architect must be a draughtsman of no mean skill. Is it impossible or inexpedient to require an examination test of his skill?"

These militant and eager words, uttered originally some few years ago, have their significant bearing to-day and are still a warning to those students of ill-balanced and jejune enthusiasms, who scoff and scorn the "constructional element," the "business instinct," which are quite as essential to Architecture as an insecure, if felicitous, picturesqueness of gable.

Mr. Seth-Smith's attainments in pastel are well known. It will be interesting to give his views upon the usefulness of pastel to the Architect:—"Among artists generally pastel work is now much in vogue, and the Architect, if he takes a high view of his vocation, will despise no movement which may refine his sense of colour, assist his imagination, or enable him more expeditiously to express his intentions. It is true that a busy Architect cannot be expected to be proficient in more than one method of pictorial drawing, be it water-colour, pencil, pen and ink, or combinations of these, but no great skill is necessary to enable one to make some practical use of each and all, including pastels.

"I am not sure that I should recommend them for the architectural pupil, for a beginner cannot be too precise, especially in the representation of form, whereas pastel work is eminently suggestive; but if one uses water colour, pencil, pen and ink, or a hard chalk frequently as a corrective to more hasty and suggestive work, nothing but good can come of the effort; just as an artist will turn from time sketches to finished efforts, that he may become neither ragged on the one hand nor too realistic on the other. The special uses so far as I have tested them (though I have no doubt that many others will suggest themselves to you when once they have been tried) are as follows:—*Firstly.*—The rapid production of exterior and interior perspective sketches, especially with a view to enabling one to judge of the relative beauty and suitability of different coloured materials, and to change those effects until one is satisfied. The flexibility of the medium and its accidental combination constantly suggest new ideas as to materials or their disposition and relationship. I am aware that there is a disposition to exclude colour from our sketch designs of buildings from the impression that an attractive bit of colour may warp the judgment and tend to weaken a sensitive appreciation of form, and I will not deny that there is much truth in this as regards drawings made to captivate competition promoters; but the man who cannot exercise sufficient self-restraint to enable him to be truthful in studying for his own practical purposes is to be pitied. Make your first roughing-out of form in charcoal if you will—it is an excellent plan as tending to freedom of idea—but let us remember that the most beautiful outline and detail may easily be marred in execution by the use of ugly or ill-combined colouring.

"Its second use, in my opinion, is to produce the exact pattern necessary to guide your decorator when instructing him as to distemper or flatting colours, and here, again, pastels are infinitely better than oils, for the reason that the luminous effect, upon which success of the finished work depends, can be produced in a moment by preparing the surface of your pattern with the most brilliant colours which you desire should palpitate through the finishing coats. In giving the patterns to the painters you must avoid their being rubbed, and caution them to the same effect. I do not think that the necessary roughness of the usual pastel paper, of which a great variety of tints can be obtained from some of the best artists' colormen, is any disqualification, as the uneven surface is soon filled up with the medium. Pastels may be used in producing schemes of colour decoration to large scale, and for studying large scale designs of wall papers, friezes, &c. Perhaps a word should be said as to the importance of avoiding contact of the chalks with any open wounds in the hand, as many of them are of a poisonous nature. With special reference to the paper to be used, one of the safest tones is a neutral grey, which, telling through in places, will generally harmonise; but where large surfaces of deep warm tones are required, as for buildings, a darker and warmer paper, such as varieties of brown



GROUND PLAN OF SCHOOLS, WEST OF ENGLAND: W. H. SETH-SMITH, ARCHITECT.

paper as near the general surface colour as can be obtained, should be used, the lights and greys being superimposed. Another merit in pastel work is that the commonest brown paper will often offer as good (and sometimes better) surface for their application than many a one specially prepared."

As to "pretty" drawings it seems to him extremely desirable that a man should be not only an expert draughtsman in line but should draw with facility both freehand and technical perspective, and should, moreover, understand the principles of light, shade, and colour. In short, the better he is at pictorial art, assuming he does not neglect the practical or falsify the perspective of his own work, the better he can study and record existing buildings, and the more thoroughly study and improve his own design, and, what is equally important, the more readily can he convey his ideas to his assistants and clients, and give confidence to the latter in his ability as an Artist.

Mr. Seth-Smith is a Fellow of the Institute, a past President of the Society of Architects, and a Member of the A.A. Committee. He has been engaged in Building and Architectural pursuits for 22 years, and in independent practice for 16 years, during which time he has made Scholastic and Domestic Architecture his speciality. Besides private practice he holds the following appointments:—Architect to the French Hospital, Shaftesbury Avenue; the Homes for Working Boys in London; the Homes for Working Girls in London.

NEW GOVERNMENT BUILDINGS.

WHY NOT A COMPETITION?

JUDGING from the evidence which has been recently given before the Select Committee, the strategical combinations are as complicated as ever, says Mr. Woodward, who has evidently carefully studied the New Public Offices question. A careful perusal, however, of the published report, evidence, and plans shows clearly that the present Committee is more alive to the value of open space and to architectural and æsthetic considerations than its predecessors of a quarter of a century ago, and that the great experience of the requirements of Government offices possessed by Mr. John Taylor, the present senior surveyor to the Office of Works, stands the Government in good stead in coming to a proper decision on the questions before it. It is, too, satisfactory to find that the Committee has stated in the report that the schemes call in some points for "more mature consideration," and "advises that reference be again made thereon next session." A distinctly unique opportunity has arisen for conferring upon Whitehall, a neighbourhood already enriched by some of our finest buildings, some additions to its Architecture, and some improvements in its thoroughfares, which may never again occur. The offices to be provided for in the new schemes are the War Office, the Education Department, the Privy Council Office, the Board of Trade, the Local Government Board, the Board of Agriculture, the Office of Woods, and the Office of Works, besides others, and the main result which it is to be hoped will be secured, will be the concentration of the various departments in their respective blocks, in place of the present scattered rooms in inconvenient and unhealthy

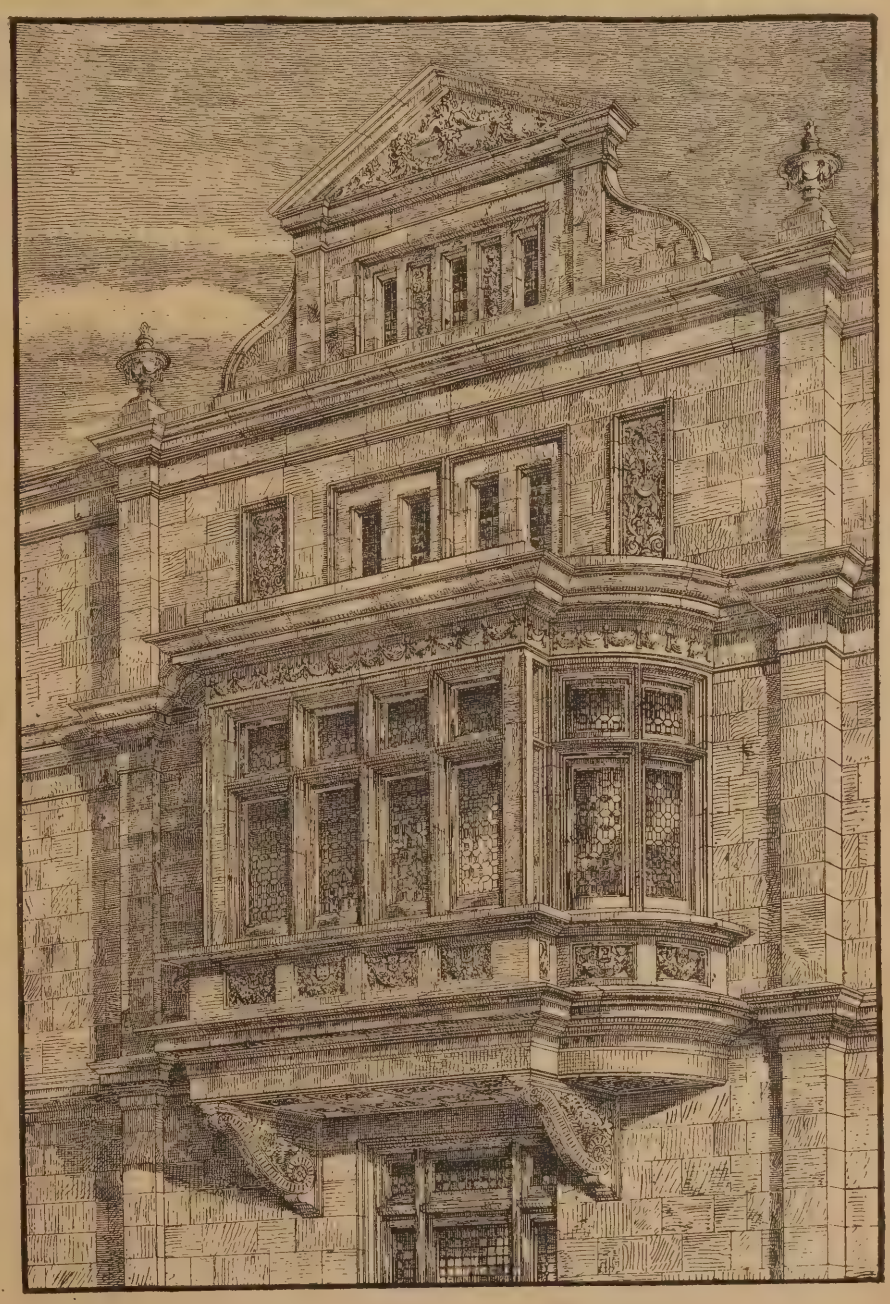
CONVERTED DWELLING-HOUSES.

The respective sites for these new offices may be termed the Spring Gardens site, the Whitehall Place site, the Downing Street site, and the Great George Street site, and it is not too much to say that the successful dealing with the buildings to be placed on these sites will exercise to the full the faculties of the most skilful architect—not only in providing healthy, light, and well-planned offices, and in clothing those offices with Architecture worthy of the surroundings and of the occasion, but also in the important questions of street alignment open spaces, views, and vistas. The Spring Gardens site is especially dominated by two leading features: 1. The opening up of the Mall to Charing Cross; and 2. The proposed Hôtel de Ville for the London County Council. As regards the first, Superintendent F. Beard, in giving his evidence, condemns, on 'traffic" grounds, the opening at the point suggested in the Office of Works' plans, but, as was subsequently (and fortunately) shown in questions asked by the Committee, the superintendent's fears can well be met, and this long-promised splendid and cheap London improvement, with its grand vista from Charing Cross, in a line with the Strand, at last seems near at hand. As regards the Hôtel de Ville it is quite clear that for a good result the designs must be made in conjunction with those for the additional Government buildings at this spot. The London County Council and the Office of Works must be together in this matter; entirely new plans must be prepared, and, while we are about it, why hamper and spoil the scheme by the retention of Drummond's Bank? True, its acquisition may be costly; equally true is it that its loss as a work of art will not be felt, and it is certain that the large and valuable addition to the position and area of the offices' site which will result from its removal will well repay the Government for its courage. We have had so many architectural ships spoiled for the proverbial "ha'porth of tar" that the public should now support the Committee in their evident desire, with due regard for the public purse, to make the scheme architecturally perfect.

The Whitehall Place site is to some extent governed by Whitehall Court and the National Liberal Club, and it is to be hoped that in the design for this block some little thought will be given to balance it as much as possible with Inigo Jones's Banqueting House. The Downing Street site involves many considerations as regards the retention of existing buildings, but Dover House surely need not stand in the way. It is thoroughly unsuited in plan for its present purpose, and, architecturally, it will not be missed. The Great George Street site opens up a fine field for artistic ideas. Alignment, traffic, open spaces, views of the Abbey and Houses of Parliament, and style of Architecture of the new buildings in the midst of such picturesque and varied surroundings may well have given rise to the Committee's prolonged series of questions, and a brilliant opportunity presents itself to solve the problem. If that problem cannot be perfectly solved without the removal of St. Margaret's Church, then what little it possesses in the way of architectural interest should not be allowed to stand to mar what may be one of the finest groupings in this or any other city. Is the work to be done by the Office of Works, or is an

ARCHITECTURAL COMPETITION

to be invited? The Committee, fortunately or unfortunately, have for their guidance some precedents, some of which may be mentioned. The



AN ORIEL WINDOW: BY W. H. SETH-SMITH, ARCHITECT.

Foreign Offices are the result of a competition, and, it is true, were erected, at the dictation of Lord Palmerston, in a style of Architecture with which the architect was not familiar; but the Office of Works could tell a tale of what was done by the Department, after the architect had completed the building, to make it healthy and habitable. The Royal Courts of Justice are also the result of a competition, and the Office of Works could tell a tale of what it has not been able to do to make the plan less objectionable than it is. The new Admiralty buildings in St. James's Park are the most recent result of a competition, and if the public thinks that, viewed on its merits as a specimen of Architectural Art, it offers a satisfactory contrast to even its poor surroundings, then this opinion should be pressed upon the Committee. The new General Post Office buildings in St. Martin-le-Grand, the Chancery Lane additions to the Public Record Office, and the Bow Street Police Court are three buildings designed and executed by the Office of Works itself, and may be pitted against the three competitive designs mentioned, leaving the public and the Committee to decide which course has produced the best result, either from the practical or from the artistic point of view. The matter is certainly one for serious consideration. It is due to the profession of Architecture in this country that it should be afforded another opportunity to vindicate its character for talent and ability, and to wipe out the stigma which now attaches to it, chiefly from the unfortunate influence exercised by the caprices of a few draughtsmen who appear to have thought that burlesqued Dutch gables, broken pediments, and cigar-shaped columns are fitting substitutes for sound construction, sanitary requirements, and dignified Architecture. If competition is decided on, it should certainly be open to all, and the Office of Works might well take part in it.

STRAY NOTES ON SOME CHURCHES IN BELGIUM AND NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

III.

MENTION was made in the first of this series of papers of the very Teutonic character presented by the Churches in the North-Eastern part of Belgium, more particularly those of Liége and Maastricht. The former of these cities was long a German Prince-Bishop's See, suffragan to Cologne. Here the twin western Romanesque Steeples of St. Barthélemi, with the ribs of their short quadrilateral Spires springing from the Gables which terminate the Towers, and the octagonal one rising above the western Apse of St Croix, quite transport us to the banks of the Rhine. It is true the French element is very patent in the lofty Arcades and almost perpendicularising Flamboyant Clerestories of the Cathedral, St. Martin, and St. Jacques, but the German predominates, as the lofty aisleless Apses which almost without exception terminate the Choirs of the Churches in the city exemplify. That of St. Denys is strikingly like the Choir at Aix-la-Chapelle Cathedral. Distinguished as it is only by a light *flèche* rising from the long line of its roof, the Church of St. Christopher is apt to be overlooked by the generality of visitors to Liége. It was terribly deformed by the Italian mask with which the unlucky piety of that period had invested it, but it has managed to issue from that ordeal with its highly interesting Nave arcade unscathed. The peculiarity of St. Christopher's Nave consists in its simple circular arches being supported on cylindrical columns alternating with square piers, after the manner of those in the two fine old Basilicas at Hildesheim, St. Michael's and St. Godehard, and with Corinthianising capitals. Another extremely interesting bit of Romanesque in Liége is the tower of St. Jean, with those flat strips of vertical and horizontal masonry relieving the brickwork, so common in Germany. The Church to which this old Steeple is attached was rebuilt in a tasteless Italian style, but it is curious from the manner in which its plan apes that of the Dom at Aachen, *i.e.*, an octagonal Nave, surmounted by a Dome, to which is attached an oblong Choir, all carried out in red-brick with stone dressings. St. Croix, with its western Apse, its octagonal Tower and Spire recalling the Rhenish Church of Sinzig, and its tall unclerestoried Middle Pointed Nave of the "hall" class is very German. By the term "Hall Church," I mean that in which the Clerestory being absent, the Nave arcades are very tall, and the Aisles carried up to and vaulted at the same level as the Nave, the whole being covered externally by one continuous sloping roof. The earliest adumbration of this class of Church, which afterwards became so popular throughout Germany, seems to be the Nave of the Romanesque Church of St. Ludger, in Münster, dating from c. 1180. Indeed there is hardly a town between the North and Baltic Seas and Austria that cannot show one or more of these "hall" Churches.* The student who takes the Brussels route to Germany will first form their acquaintance in St. Nicholas, at Aachen. He will but rarely meet with these Churches down the Rhine, but if he proceeds from Aachen towards the north-eastern part of the country, *viâ* München-Gladbach and Neuss, he will enter upon their district at Essen, where a somewhat clumsy example built on to the three remaining sides of an octagonal Church similar to, and coeval with, the Dom at Aachen, will confront him.

The Pfarr-Kirche, and St. Peter's, at Dortmund, and several of the churches in Münster and Soëst, present the same hall plan on a more *élancé* scale. Except in the case of St. Lambert at Münster, where it is relieved above each aisle window by a hipped gable, the immense expanse of roof, covering up the building like an extinguisher, is highly detrimental to architectural beauty in the eyes of an Englishman accustomed to the Clerestory, or to the separate Gables which were invariably employed whenever such a type of Church was adopted† in this country, as in the case of the great one in Austin Friars and many a village Church where the Clerestory is absent.

When we reach Osnabrück, however, these huge masses of roof are materially lightened by the gables which, surmounting each side window as well as the one at the extremity of either Aisle, are introduced so lavishly as to render us at a first glance a little perplexed as to which is the side and which the end. Herford, Lemgo, Osnabrück, and Minden present us with numerous examples of this—it must be confessed—highly picturesque arrangement of Gables. But the constant occurrence of this type of Church becomes monotonous after a few have been seen; indeed, it was quite a relief, on getting to Halberstadt and Erfurt, to once more behold a Clerestory, as exemplified in the Dom of the former and in two of the latter's noblest Churches, which, with only the intervention of a piece of water, lie parallel, somewhat after the manner of those immense Perpendicular Churches at Bury St. Edmunds. The two Churches at Erfurt in question are the *Barfusser* Kirche (Barefooted Friars Church) and the *Prediger* Kirche (Dominican Church). But of these more anon. The great glories, however, of the German "Hallenkirchen" are their windows, which, usually of great height and occasionally crossed by transomes, exhibit traceries—sometimes geometrical, sometimes reticular—perfectly bewildering from the varieties displayed. Of its class, to take a solitary instance, I know nothing more charming than the south side of St. Mary-on-the-Hill, at Hereford, with its four Gables, each surmounted by a fleuriated cross of delicate design, and lighted by as many windows, each of which is a study.

Despite a certain clumsiness and impurity of detail—too frequently the case in German Middle Pointed Work—it cannot be denied that there is a feeling of great elasticity and spaciousness about these "hall" Churches which eminently qualifies them for town use. St. Mary-in-the-Meadows, at Soëst, for instance, where the ribs of its roof die into the graceful piers, without capitals, whose immense windows glow with the finest mediæval painted glass in Germany, and rich as it is in coeval *instrumenta ecclesiastica*; or St. Lambert's, at Münster, less fortunate in the preservation of its mediæval fittings, but strikingly graceful from its tall reed-like columns and from the imposing manner in which its western Tower opens into the Nave. Besides these, there will be found in many towns Churches of the "hall" class, distinguished by moderation in height and greater depth of Chancel. They are destitute of Steeple, a light *flèche* for the bell alone breaking the long line of roof.

Such Churches are those built by the Minorites, the Franciscans, the Augustinians, and the Dominicans in Cologne, Aix-la-Chapelle, Münster, Halberstadt, and Hildesheim. Situated in the heart of those cities, they occupy the position the great Preaching Orders were so careful in selecting—

> Bernardus valles, montes Benedictus amabat,
> Oppida Franciscus, celebres Ignatius urbes.

With them may be classed the great Churches raised in imitation of them during the Early Renaissance period by the Jesuits, and which—despite solecisms of detail—are really noble structures. Specimens may be seen in the Churches dedicated to the Founder of their Order, in Paderborn and Cologne. I have introduced my readers thus early to this particular class of Church, because it is among the first to confront them on entering Germany.

The Dom at Paderborn, the Minster at Herford, and the Churches of Minden and Marburg, may be cited as the most nobly-dimensioned Cathedral and conventual Churches of the unclerestoried type. In the last-named example the architect has introduced two tiers of windows in lieu of the long openings commonly seen, but this arrangement always seems to suggest a gallery, and is not very felicitous.

Although the Dom at Paderborn and the Münster Kirche at Herford both date from the second quarter of the thirteenth century, their detail is such that, were we to see them in England or France, we should assign them to a period at least fifty years anterior. The Münster at Herford is the less altered of the two, its Aisles retaining their original fenestration of coupled lancets with round heads and other Romanesque detail. At Paderborn, grand Early Decorated windows have been inserted, and their tracery—eclipsed, perhaps, by that in the celebrated windows at Minden—is among the finest of its class in Northern Germany.

There is great similarity between the lofty Nave arcades of both churches—composed, as they are, of pointed arches with very plain soffits springing from noble clusters of slender shafts—some cylindrical, others square, but all with boldly carved caps, and grouped around a rectangular core. The closest study is required by both buildings—indeed, as a specimen of a German ecclesiastical interior, deriving its grandeur of effect, not from mural or vitreous decoration, but from nobility of design, Paderborn Cathedral is one of the most impressive I know. It is more picturesque, too, than that of Herford, owing to the great elevation of its Choir upon a flight of steps, which, rendered necessary by the Crypt, commence within the last bay of the Nave, and carry the "chorus cantorum" across the Transepts. A similar arrangement may be seen at Naumburg where, as well as at Paderborn, the "chorus" is entered by a flight of steps against the eastern wall of either Transept. In neither Church are there Aisles to the eastern limb. The Dom at Hildesheim, and the Minster at Bonn, both present these curiously shut-in and elevated Choirs; while grandly raised ones upon similarly extensive Crypts are met with in the Münster Kirchen at Essen and München Gladbach, and in the transverse-triapsidal Church of St. Quirinus at Neuss. Throughout Germany the custom of placing the "chorus cantorum" in the Transept, necessitated probably by the general shortness of the eastern limb, is very common, examples frequently coming before the notice. At Herford the Crypt, being of much more modest dimensions, is situated beneath the northern Transept, consequently the floor of the centre of the Church is level from end to end, and the internal ensemble hardly so picturesque.

(*To be continued.*)

* It is interesting to find the "hall" Church so far north as Lille, where it appears in the imposing but somewhat coarsely featured five-aisled Church of St. Maurice.

† As an example of this I may refer to St. Severus, at Erfurt, beneath whose steep, high-pitched roof of tiles five Aisles are contained.

THE very oldest lock in existence is the one which formerly secured one of the doors of Nineveh. It is a gigantic affair, and the key is nearly 3½ ft. in length, and of the thickness of a 4-in. drain-pipe. It was found at the end of a ruined chamber, where a large wooden door had probably once stood, the gigantic brass hinges and heavy bars being still in fair condition, though somewhat corroded.

Bricks and Mortar.

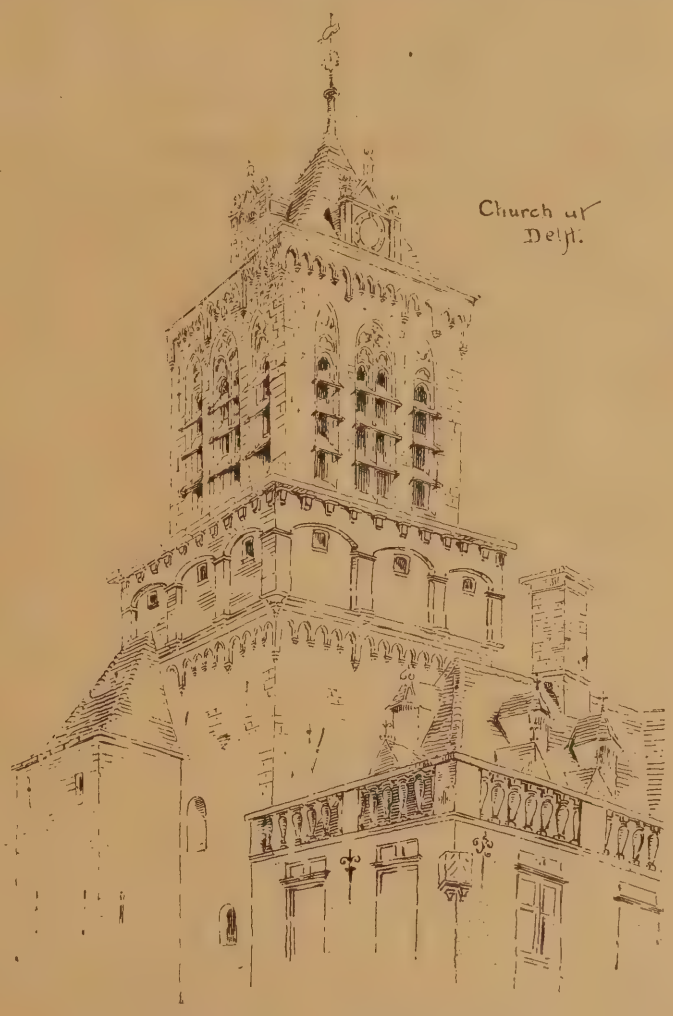
TALBOT HOUSE, ARUNDEL STREET,
September 30th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

IN the annual report of the National Trust for the Preservation of Buildings of Historic Interest, Natural Beauty, or Architectural Value, it is stated that the Society was instrumental in the preservation of the Trinity Almshouses at Mile End, and in preventing the obliteration of the Wall of Antoninus. The Pre-Reformation clergy-house at Alfriston, Sussex, has been purchased, and will be restored as soon as the £350 required is subscribed. The purchase of Barras Head, the headland facing the ruins of Tintagel Castle, is hindered for want of funds. The Trust is considering the possibility of purchasing Cowper's Garden at Olney, Coleridge's Cottage at Nellies Stowey, where "The Ancient Mariner" was written; Dr. Johnson's birthplace at Lichfield, and the Old Joiners' Hall at Salisbury. It is surprising that the coffers of a society which exists for the preservation of whatever is beautiful and venerable in our picturesque and richly storied island, should not be better filled.

CLONFERT CATHEDRAL, for the restoration of which an appeal is made, is situate in County Galway, 8 miles from Ballinasloe Station, on the Midland Great Western Railway, and 3 miles from Banagher, on the Great Southern and Western Railway. It was founded by St. Brendan, in the year 558, 39 years before St. Augustine landed in England, and thus before Canterbury Cathedral was founded, and also long before Westminster Abbey, St. Paul's Cathedral, York Minster, Salisbury Cathedral, Winchester Cathedral, or many of the ancient cathedrals, or parish churches, existing at the present day. It has a very chequered and interesting history. It suffered greatly from the incursions of the Danes, who frequently sailed up the River Shannon from Limerick and attacked Clonfert. It was burnt six times between the years 774 and 1179, and was plundered three times between the years 949 and 1065. In the year 1541 it was almost totally destroyed. Bishop Woolley repaired the cathedral in the year 1664. Since that time, up to the present, a period of over 230 years, some alterations and improvements have been effected, but no general work of restoration has been done, consequently the building is in great need of repair. Clonfert Cathedral is one of the smallest in the kingdom, and is now used as the parish church. It is celebrated for its magnificent twelfth-century doorway, one of the finest remaining specimens of Hiberno-Romanesque work in existence. It is also remarkable for its chancel window, nearly a thousand years ago, which is similar in design to that of Temple Righ, at Clonmacnoise. Some years ago, when the plaster was removed from the fine chancel arch, a few small but very curious pieces of sculpture were discovered, one of which represents a mermaid combing her hair. This is considered to have reference to the voyages of the founder of the cathedral, St. Brendan, the navigator, in the sixth century, and to his landing in America. There were originally two transepts; one is now in ruins and roofless, the other is completely gone. There is a small, but very ancient, sacristy at the north side of its having been roofed with Danish wattles. This hurdle-roofing is considered a mark of great antiquity. Clonfert at one time was a city, and celebrated for its schools. It is now not even a village. Mr. J. F. Fuller, the architect to the Representative Body, estimates the cost at £1,500, and recommends the work be carried out at once in sections, as money is subscribed.

UNDER the title of the Photographic Salon, the exhibition of pictorial photography was opened on the 24th inst., at the Dudley Gallery, Piccadilly, and has, like its predecessors, several features of great interest. The Photographic Salon, of which this is the fourth exhibition, was started a few years ago by a handful of enthusiastic photographers, in order to give to the work of the camera a higher position among the Arts than it before occupied, by endeavouring to show that the pictures produced by the chemical action of light need not necessarily be bald statements of fact, but are so under the control of the operator, that he should be considered in the light of an artist rather than a mere mechanical agent. The Salon does not tie its exhibitors down to any hard and fast rules. They may use what process they like, modify their negatives in any way they may think proper, and use any means they can hit upon to produce an artistic result. There are certainly some among them who appear to regard this liberty as licence, and who produce pictures which owe so much to manipulation of the negative that very little of the original work of the sun is left. Such pictures cease to have the appearance of photographs and look like rough sketches in crayon or charcoal. But these are the eccentricities of an exhibition which contains some pictures of great beauty, and a large number which are highly commendable.



SKETCHED BY W. H. SETH-SMITH, F.R.I.B.A.

FURTHER excavations on the site of Newenham Priory at Bedford have led to the discovery of two pieces of bronze scroll-work close to the spot where the stone coffin was found. The fragments evidently belong to separate scrolls, but bear in very neat and clear Gothic letters part of an inscription, but quite sufficient to indicate the name and character of the personage whose memory it was intended to perpetuate. As the coffin found had no lid, it is by no means certain that these bronze scrolls were ever attached thereto, and it seems more probable that they were affixed to a monument or mural tablet in the church of the former Priory. The size and appearance of the skull found in that coffin, and the fact that it was a hewn stone coffin, lead to the inference that the remains are those of a dignitary of no small consequence. Indeed, it was suggested that it might be Robert de Parys, but some would deem it more probable that the benevolent Norman was buried within the precincts of the Hospital of St. John. In all probability the remains are those of John of London, a member of the fraternity of Canons Secular, who once formed the College of St. Paul's, and afterwards went to Newenham Priory on that establishment being founded by Simon de Beauchamp, whose memorial brass—dated 1208—in the chancel pavement of St. Paul's Church is said to have been the earliest known, and is now represented by its indent in the slab. The lettering of the inscriptions on the scrolls is of the period between 1250 and 1400.

THE first exhibition of the Society of Miniature Painters has just opened at 175, New Bond Street. It serves to remind us that the art of "painting in little" is not quite relegated to the past, though, notwithstanding an annual place at the Academy and occasionally an appearance at minor shows, miniatures can scarcely be said to divide popularity with the many other products of art in vogue. In a display of this kind it is but a concession to much patient labour to ignore sundry productions that have little to recommend them except highly-enamelled complexions and affectations of pose—two of the worst dangers in the pursuit of this flattering Art. From the best work may be selected a few examples in which good technique is combined with character or sweetness, or sometimes with a delicate sense of truth and expression in a face that is not beautiful in the conventional use of the word. The president of the Society is Mr. Alyn Williams, whose contributions include pretty portraits of Dorothy, daughter of Dr. R. Welsh Branthwaite, and Mrs. Alyn Williams. One of the vice-presidents, Mr. Robert Sauber, has been contented to design a sketch for the cover of the catalogue. Several distinguished painters, whose names figure on the list of members, have not honoured the first exhibition, though two or three have sent small cabinet-pictures which scarcely come under the head of miniature painting. Such are Mr. Herkomer's portrait of Mr. Onslow Ford, and "An Offering" in Mr. E. J. Poynter's well-known classic vein. Welcome to many will be a miniature of an Eastern girl, with red draperies, against a blue background, from the brush of the late Lord Leighton, lent by Mr. George Aitchison; and on another wall will be recognised Lord Leighton himself, from the hand of Miss Rose Carter, a careful likeness in profile.

BUNBURY CHURCH, Beeston Castle, and Peckforton were recently visited by the members of the Historic Society of Lancashire and Cheshire. At Bunbury at one time stood a Norman church, of which the only remaining traces are some fragments of carved stone, which have been dug

up in the churchyard. From these stones it was inferred that the Norman church was probably a large and highly-ornamented structure, having a chancel arch of two orders carved in the familiar dog-tooth pattern, and that the walls of the chancel were in all probability beautifully diapered. The present building consists of nave with north and south aisles, chancel, and south chapel, and a small north chapel, now used as a vestry. At the west end of the nave is a fine tower. This tower, together with the chancel and north chapel, are in the decorated style, and probably date somewhere between 1335 and 1350, and contain some very interesting tracery and mouldings. The nave, north aisle, south aisle, and south chapel are of the perpendicular style, and were probably erected about the same period in the reign of Henry VII. The south chapel is separated from the chancel by a stone screen of great elegance, which has some beautiful armorial painting on it and an inscription stating its erection by Ralph Egerton. In the centre of the chancel is an altar tomb on which rests an effigy in alabaster of Sir Hugh Calveley, a commander of one of the free companies and at one time Governor of Calais, whilst on the north wall of the sacrarium is the recessed mural tomb of Sir Hugh Beeston, who was an admiral of the high seas in the reign of Elizabeth, and fought against the Armada. The perpendicular work at Bunbury Church is very good, although inclined to be too linear. There are at the entrance of the church several old coffin lids and effigies, which have been dug up from time to time, whilst there are traces of very early mural paintings and some beautiful bits of decorated carving in stone, probably parts of a reredos or ledge for figures. The church plate is fairly modern, and not of any special interest. The registers go back to about 1570, and would repay anyone transcribing them, and it would be a good thing if the older ones were carefully repaired and rebound by some bookbinder who is used to such work. Bunbury Church was formerly collegiate, and had attached to it a college of secular canons; of this college, however, no traces remain, although its site—some 200 yards south-east of the church—is ascertainable. Peckforton Castle was built on the plan of a Norman castle for Lord Tollemache by Salvin, and is exceedingly well carried out.

AN object of great antiquarian interest has been unearthed on the removal of the surface soil in preparation for excavating upon the site of the supposed Roman station of Veratinum (*i.e.*, Wilderspool), and a few yards to the west of the Roman road, of which an interesting section 40 inches thick has been exposed. The discovery was made by Mr. Thomas May, of Warrington, who, having observed the numerous fragments of pottery and other Roman remains, obtained permission from Mr. J. Waddington, of Stockton Heath, the contractor, to examine the stones which had been dug up from what had evidently been a trench, and where the soil was darker and 2 or 3 ft. thicker than elsewhere. Whilst doing so Mr. May observed a block of regular oblong shape, which turned out to be a Roman altar. The material of which the altar is composed is the soft red sandstone of the locality. It bears no mark or trace of an inscription or lettering having been carved upon it. Its proportions are regular, and the altar is quite perfect, except where a small fragment was broken off at the left-hand corner of the base. The back of the stone is undressed, showing it was intended to be set up against a wall. It consists of three well-proportioned features, viz., a capital, a shaft, and a base, and the following are its dimensions: The capital measures 12½ in. in length, 8½ in. in breadth, and about 5¼ in. in height; the shaft is 9¼ in. high, 11 in. wide, and 8¼ in. thick; and the base is about 14 in. long, 10¾ in. broad, and 6 in. high, so that the total height of the altar is only 20½ in., which is unusually small. Three round mouldings, separated by deep horizontal grooves, and diminishing proportionately downwards, form the front part of the capital. There is a rude carving in high relief on the right side of the shaft, to represent what may be taken as the prefericulum, or pitcher, used for containing wine to be poured on the remains of the burnt offering after it had been consumed upon the altar. Many Roman antiquities have been found at Wilderspool, but this is the first Roman altar which has been found there.



AT DELFT: SKETCH BY W. H. SETH-SMITH, F.R.I.B.A.

AMONGST the schemes for public works engaging the attention of the Russian Government is one for the connection of the Baltic and the Black Sea by a waterway along the Dwina, Berezina, and Dnieper to Kherson. Our Consul-General at Odessa, in his last report, discussed this project, and observes that if it were carried out it would throw into the shade all other works ever undertaken in Russia, including the Siberian railway. The rapids on the Dnieper are said to present almost insurmountable obstacles to navigation, and the amount of labour entailed in constructing a canal navigable both ways would be enormous at this point alone, while it would be impracticable to cope with the immense volume of water that sweeps over these rapids during the spring floods. The only alternative would seem to be the construction of a canal with a system of locks to run parallel with the river past the rapids. This, too, is impracticable, for the cost of constructing such a waterway of adequate depth would be fabulous.

MR. G. F. WATTS, R.A., can scarcely fail to hear with a sense of honourable pride that he supplied the initiative to that movement for regenerating French morals through the agency of art which has recently been set going by "L'Union pour l'Action Morale." It appears that M. Paul Desjardins, on a visit to London, caught sight of a cartoon by our great idealist reproduced in mosaic as a mural decoration, and was struck by the respect with which it inspired casual wayfarers. A trip to the Brussels Exhibition convinced him that the ordinary poster of commerce, if properly handled, might exert a beneficial influence on a decadent public. He took counsel with M. Puvis de Chavannes, the well-known allegorical painter, who thoroughly entered into his views. The result was the formation of the above-named society, the aim of which is not limited to mere hoardings, but embraces appeals to man's higher nature through every form of art. But a few days ago the first popular experiment was made by placarding the Boulevard des Capucines with a carefully-executed reproduction of "The Childhood of St. Geneviève," by M. Puvis de Chavannes, who sketches in quaint mediæval style the history of the inspired shepherdess to whom Paris owed its preservation from Attila and the Huns. Whether the enterprise will have any enduring effect remains to be seen, but as a protest against the suggestive posters which

run riot in the French capital, everyone will wish it success.

IT is satisfactory to learn that reforms are at length being introduced into the management of South Kensington Museum. A scientist, instead of a soldier, has been appointed Chief of the Circulation Department, in the person of Mr. W. W. Watts, formerly a Temporary Assistant Geologist in the Geological Survey. The military element is also being gradually reduced in all the other departments. This year there are 25 inspectors, of whom 11 are civilians and 14 are soldiers. Last year the total number was 40, of whom 17 were civilians and 23 soldiers. There is still room for improvement, particularly in the London Inspectorate of Drawing.

THE following figures show how common a thing it is for engineers to underestimate the cost of various works. The cost of the Manchester Ship Canal was estimated at £5,750,000, but before the canal was completed nearly £16,000,000 were spent on the works. The cost of digging of the Suez Canal was estimated by the International Commission of 1856 to be £8,000,000, but before the end the figures amounted to £22,900,000. It is now stated that the engineers appointed to estimate the cost of the Congo Railroad fix the amount at £2,600,000. In their report last year their estimate was only £1,000,000. The underestimate of the Panama Canal nearly swamped that enterprise, before wholesale stealing completed the ruin. The Corinth Canal cost £2,400,000, instead of the estimated £1,200,000; the Senegal Railroad, which was to be constructed for £520,000, absorbed £1,800,000; and the Tonkin Railway, which was to cost only £100,000 cost £873,558 before it was completed.

MRS. HUMPHRY WARD'S settlement at University Hall has been temporarily removed from that building, as a larger building is being erected for it in Tavistock-place. The building is to be called the Passmore Edwards Institute, because the largest part of the cost, which will be £15,000, will be found by him. It will, however, be carried on by the same Committee, and in the same spirit as that which has presided for some years in the new University Hall. The old University Hall is now Dr. Williams's Library. Mrs. Ward's University Hall was only an unused wing of the old building.

RHOS-ON-SEA is the object of a gigantic scheme for the development of the Rhos Estate, near Colwyn Bay, just formulated by Mr. W. Horton, of Birmingham, who came into the Colwyn Bay district in the spring of the present year, and who has since purchased the estate of the late Mr. Bostock, of Liverpool. When the plan is completed Rhos-on-Sea will probably be the finest seaside resort on the North Wales coast. The Rhos Estate comprises about 350 acres of land at the foot of the Little Orme. It has a coast line of crescent form of over 3 miles in length, and the scheme of development includes the construction along the whole front of a marine drive 100 ft. wide, laid down in the form of a boulevard, along which it is hoped the electric tramway between Colwyn Bay and Llandudno will eventually be laid. Mr. Horton is offering three prizes of £100, £35, and £15 for the best designs for the development and laying out of his new estate, which is to be laid out on the most approved principles, special attention being paid to the question of drainage, while the advantages of the electric light will also be largely utilised. Mr. Horton further intends to extend the pier erected by the late Mr Bostock, so as to accommodate the Liverpool and Welsh coast steamers.

AN archæological discovery of considerable interest has recently been made by Mr. E. P. Andrews, a student in the American School of Classical Studies of Athens. He succeeded in deciphering an inscription on the architrave at the east end of the Parthenon. The face of the eastern architrave is thickly dotted with small holes, which were always considered by scholars to be the traces of nails used at one time to hold fast the letters of an inscription. The architrave is about 100 ft. long, and the holes extend over 90 ft. of its length. He first took what is known as a "squeeze" of the holes, and then made a transcript of the "squeezes" on a long strip of paper, marking the locality of the protuberances with dots, and subsequently drawing lines from dot to dot. In this manner he was able to find that the inscription recorded the erection of a statue to Nero in the year A.D. 61.

THE demand for the electric light in Edinburgh has been so great that, after six months' working, the Committee in charge saw that it would be absolutely necessary to have large additions to the plant in the station and to the mains in the streets before the winter of the present year. There are now in course of erection six engines and dynamos of the same pattern as before—each of 360 horse-power—on the low-tension side of the engine-room, and two large alternators with three engines and four rectifiers on the high tension side, thus more than doubling the capacity of the station. Five additional boilers with three mechanical stokers and superheaters are being placed in the boiler-house, making 11 boilers altogether, leaving room for other six. The boiler-house was left unfinished, but the second storey is now being put on, and this upper floor is to be used as a coal store. The wagons of coal are to be raised up by an electrically driven elevator, and run along on rails, discharging the coals on either side directly above the boilers. The cost of the machinery and buildings will be about £35,000.

BALMORAL CASTLE is not likely to make any deep impression upon the Tsar and Tsaritsa, as apart from the natural beauty of its situation, it has certainly no striking features, either of architecture or decoration, to make it worth showing to a foreigner. The tower relieves the exterior from absolute tameness, and pulls together the disjointed buildings which have been added from time to time, but the interior is plain almost to ugliness. The walls of the corridors are hung with that abomination of early Victorian days—imitation marble paper, and are lighted with oil lamps. Trophies of the chase—heads and antlers of deer shot by distinguished visitors, are fixed in every available spot, and these are quite appropriate, except that they are framed in garlands of twigs with their tips gilded. The wall-papers in the rooms are equally unfortunate—pale stripy things that ought long since to have been consigned to the flames. The pictures are perhaps a shade worse, and comprise inferior lithographs of the Great Exhibition and faded family photographs. The curtains and carpets are of tartan pattern, and there are chairs and sofas of uncomfortable shape upholstered in Berlin wool worked into representations of dogs and deer, and other incidents of the chase. In the big drawing-room glass-fronted cases, filled with an endless variety of articles, useful and useless—certainly not ornamental—combine to give the effect of a museum. The library is a pleasant room, and the banqueting hall is well conceived and has some good tapestry hangings.

IN the Mechanical Science Section of the Congress of the British Association, Mr. W. H. Preece, C.B., chief electrician to the General Post Office, read a paper in which he said that since the end of the Edison-Swan patents many cheap and nasty electric lamps had been introduced into the market. He had, therefore, for the past two years been engaged in a series of exhaustive experiments, which he described, in order to establish a fair and reasonable specification for post-office requirements. The object was to find an expeditious as well as reliable way of testing the efficiency and usefulness of electric glow lamps. A new test had now been introduced which enabled users of such lamps to determine in a few minutes the behaviour of a lamp for many months. The test was extremely simple, and all users of lamps, by forwarding samples to central electric stations, ought to be able to have the quality of their lamps determined. Mr. Preece said that gas was cheaper to produce than electricity. This was especially the case if only an hour's continuous burning was taken into comparison, but electricity was found more economical for prolonged use, inasmuch as electric lamps could be placed exactly where they were wanted and need be lighted only when they were actually wanted, besides the advantage that they were so easily turned on and off. The cost of the use of electric lamps for irregular use or for a number of hours burning was found to be little more than half that of gas. Mr. W. G. Walker read a paper on "Street Lighting by Incandescent Electric Lamps." He said that such lamps were much cheaper for lighting side streets and roads in country towns. Arc lamps were more effective and more suitable for busy main streets, but were too expensive for side roads. After describing the systems in use in various Continental towns and elsewhere, he said that it was perfectly clear that the series system of overhead wires was suitable for scattered districts, and was as cheap as gas.

THE inauguration of the monument erected by the Society of the People's Library at Boulogne in commemoration of the first æronautic voyage from France to England took place last week. The monument is the work of M. Thomas, Sculptor, and shows, on a quadrangular base, a hollow globe made of bronze, on the top of which a tiny cupid unfurls a piece of drapery, which becomes inflated by the breeze; at the four angles there are faces sculptured in marble, representing the four winds. The anterior surface is covered by a high relief, showing England in the act of welcoming the balloon, which France is pointing at as it hovers over the Channel.

NEWCASTLE is considering what steps should be taken to commemorate the centenary of the birth of Richard Grainger. It will be 100 years (in 1898 since Grainger was born), and there will be few to deny that but for his energy and the ability of the architects he got around him, that Newcastle would not to-day be the great commercial centre and town of splendid thoroughfares that it is. There was never a personality in Newcastle that excited more public interest than the man who, as a boy, was educated at St. Andrew's Charity School. He had high aims, and he completely altered the appearance of the old town. Grounds that were devoted to gardening, to residential purposes, or on which the monasteries of the fourteenth and fifteenth centuries had stood, were comprised in his scheme of public improvements, and, on their sites, Grey Street, Market Street, Grainger Street, and other neighbouring thoroughfares, were constructed. The Central Exchange, with its fine domes and handsome interior, was built; the butcher markets,—believed to be the finest in the kingdom—were reared; and he brought a distinction to his native place that has added to its prosperity ever since.

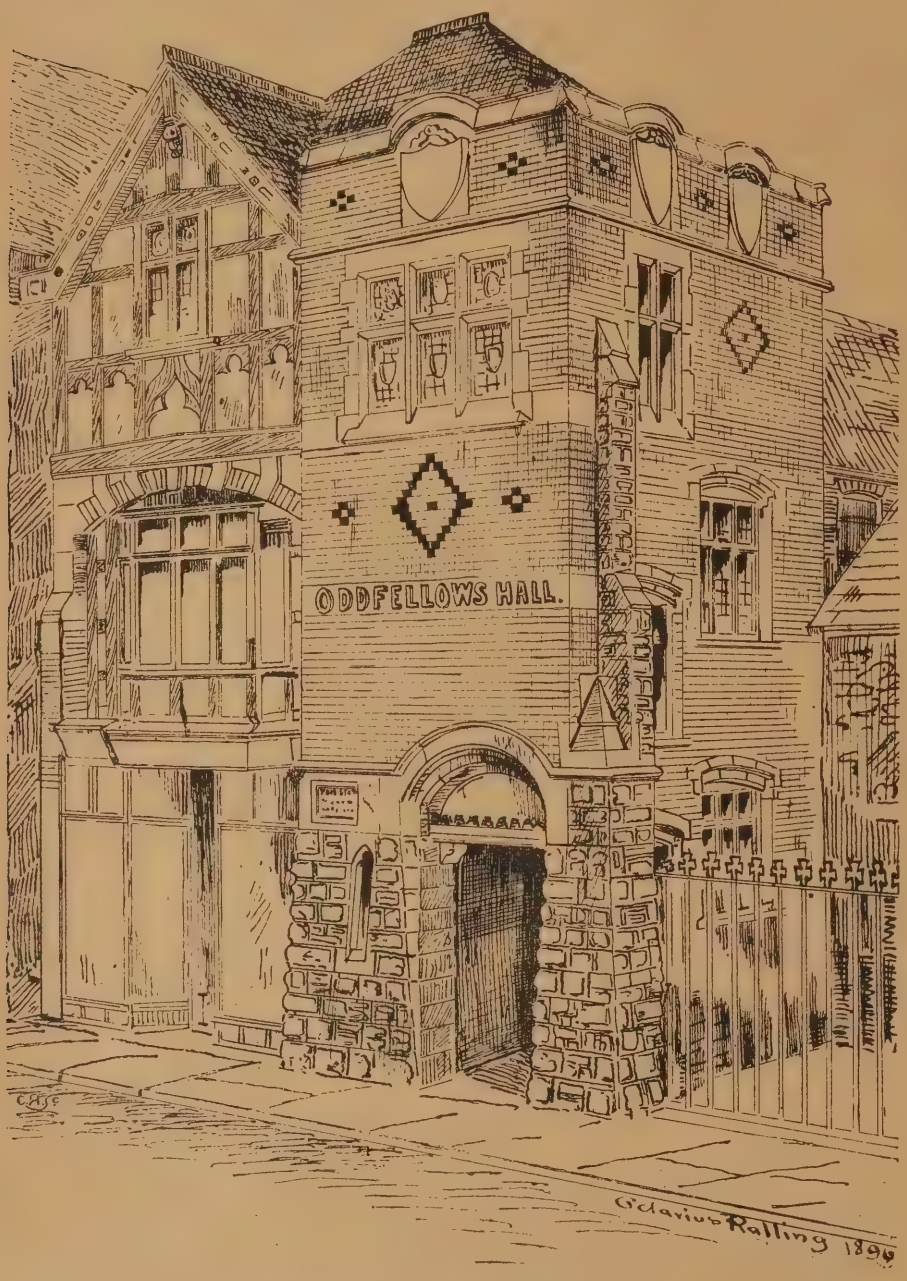
THE reopening of the Church of St. Mildred, Bread Street, which has been closed for cleaning and the installation of the electric light, will be delayed by a somewhat serious structural collapse, the exact extent of which has not yet been ascertained. The concrete floor, which covers the old burial vaults, has cracked and sunk, owing, it is believed, to the weight of the scaffolding erected for the purpose of cleaning the Church. The damage may prove very serious, as the vaults literally honeycomb the site on which the Church is built. There is little likelihood of the Church being reopened for the next six months.

SCIENCE has lost an active worker by the death of Mr. G. Brown Goode, the chief of the United States National Museum at Washington, and secretary of the Smithsonian Institution. He was an acknowledged authority on all matters affecting the administration of museums, and was ever ready to co-operate with the directors of foreign institutions, especially those in this country, with a view to the advancement of museum work as a means of education.

THE Technical Instruction Sub-Committee has organised a course of public sanitary lectures to be given on Saturday afternoons in the small lecture-room of the Liverpool Free Library. The first lecture was given on Saturday, by Sir Douglas Galton, ex-President of the British Association, the well-known authority on matters connected with ventilation and heating. The other lectures of the course are all to be given by experts in their several subjects, including the city engineer, water engineer, medical officer of health, Dr. Carter, Dr. Vacher, and other well-known gentlemen. The lectures are intended for all who are in any way interested in sanitary matters. The same Committee has also arranged for the delivery of courses of lectures on health and sanitation to be given in connection with their Technical Instruction Classes at certain centres—Toxteth, Walton, Wavertree, and West Derby.

AT present there is exposed, in Camomile Street, a considerable section of the old London Wall. It was unearthed during excavations for foundations for underpinning at 34, Camomile Street, on a portion of the site of the ancient Saracen's Head. The point at which the old wall has been laid bare clearly marks what was the boundary between Bishopsgate Within and Bishopsgate Without. The materials of which the wall is here composed consist of old red sandstone, Sussex ironstone, and Purbeck marble, the solid mass being combined by means of a lias mortar, such as was used by the Romans, but the exact composition of which has not yet, we believe, been fully ascertained. The new buildings are being constructed under the supervision of Mr. A. E. Pridmore, the contractors being Messrs. Beer and Gash, who will be pleased to show anyone the section of the wall within the next few days.

ON the walls of the National Gallery may be seen a few new pictures. Mostly they are works that are interesting rather than important. Such are "The Calm," a subject that Van der Veldt might have taken, painted by Charles Brooking, an almost unknown artist who died in the middle of the last century. A Schiavone, "Jupiter and Semele," used to hang in Lord Leighton's vestibule. It is now on a screen in Gallery VII., and might almost be mistaken for a Tintoretto. Tintoretto is said always to have kept a work of this artist in a prominent place in his studio. A little landscape by Inchbold, bequeathed by Sir Russell Reynolds, is pre-Raphaelite in its elaborate finish. In the Spanish room, amongst the Murillos and the Velasquez, a half-length of Donna Isabel Cobos, by Goya, seems rather out of key with its surroundings. Goya was living in 1828. Almost all the pictures in the National Gallery have by this time been glazed, but this precaution has not prevented some one or two showing signs of approaching ruin. Something should be done in the case of Stothard's "Green Vintage," in which the amber draperies of the nymph are sadly, and perhaps now irreparably, cracked.



ODD-FELLOWS' HALL, EXETER: MESSRS. OCTAVIUS RALLING AND LEWIS F. TONAR, ARCHITECTS.

THE work of repair and renovation annually undertaken in the fabric of the Houses of Parliament is being carried out this recess on a larger scale than usual. The principal task is in connection with the House of Commons, the interior of which is at present a labyrinth of scaffold poles and scaffolding. All the woodwork is being thoroughly cleaned, and already the fine carved oak which is the glory of the building is beginning to wear a new aspect. Seeing that this is the first time the Commons' Chamber has been thoroughly overhauled since the opening of the New Palace of Westminster in January, 1847, it is not surprising that much of the woodwork was found to be thickly encrusted with dirt. But the oak has mellowed with age, and after being carefully scrubbed its beautiful grain stands out far more distinctly than before. The closer inspection of the walls and ceiling of the House of Commons which is now possible reveals striking evidences of this superiority, which has for years passed unnoticed.

ONE of the most ancient churches round Lichfield is All Saints' Church, in the village of Alrewas. This ancient building is said to date from the year 822, and was originally of Saxon design throughout. Although the ancient building was undoubtedly Saxon, the effect of repeated restorations has been to give it a less venerable appearance, and destroy much of its antique character. The old Tower has been necessarily repaired upon several occasions, but the Saxon arch over the west doorway still remains as a witness to the great age of the edifice. It is built entirely of stone, and consists of a Nave, Chancel, and North and South Aisles. The tower has nothing peculiar about it. It contains a clock, with chiming apparatus, and the old oaken doors, beneath the ancient Saxon arch, were placed there more than two centuries and a half ago, as is evidenced by the date, 1627, still observable on the right hand side. The Nave of the Church is somewhat narrow but lofty, the roof, which is of oak, being supported by three fine Gothic arches on either side, which separate them from the Aisles, and the Pulpit, which is of oak, bears the date 1639, and has a good deal of carving about it, but show signs of decay. The Choir Stalls are also of oak, the two front ones being very old and elaborately carved. A special feature of the Church is the Chancel Arch, which takes the peculiar form known as a "Shoe Arch." It is evidently of great age. The Choir is paved with Elford tiles, while the steps leading to the Altar are of marble. At the back of the Altar is a fine stone Reredos, and on the right are two Sedilia and a Piscina. Near the arch, on the north side, is a small leper window, while on the same side are the remains of a very curious fresco.

NEW ODD-FELLOWS' HALL, EXETER.

THE site of the new hall, of which the memorial stone was laid early in June, adjoins the ancient church of St. Martin, and is a central one. The large hall on the first floor is about 60 ft. by 18 ft. There is a small lodge room on the ground floor, the floor being of wood blocks. The entrance is in the form of a tower, with rusticated stone base, worked of stone from the old buildings; the dressings are of Guiting free stone from Oxfordshire, the brickwork being of Ottery St. Mary facings, the gabled front over the shop is of oak half-timbered work, the fillings being of Guiting stone. The roof of the large hall is match-boarded, with curved principals resting on stone corbels; there is a dado of pitch-pine boarding 6 ft. high, with panelled work of the same material above. The flooring is also of pitch-pine, narrow width, and pavidillo joint. The roof over the front portion of the building is of Brosley tiles. The heating will be by one of Shorland's ventilating grates, provision being made for the inlet of fresh air, and there is ample outlet ventilation. The main staircase is of fire-proof construction. The electric light is installed throughout the building. The memorial stone is of local material—Pocombe stone, sunk for a bronze tablet with raised lettering. The Architects were Messrs. Octavius Ralling and Lewis F. Tonar, and the builder Mr. Charles Brealey.

ABOUT £17,000 is being expended in the alterations and decorations of the Alexandra Theatre, Liverpool.

THE restoration of Axminster Church tower and bells will cost more than was at first anticipated. In March last an appeal was made by the Restoration Committee for £400. This sum has now almost been raised; but a subsequent examination of the tower, however, has shown a more serious condition of affairs than had previously been realised, and it has been ascertained that a thorough restoration of the tower will cost not less than £676, which, added to the sum of £160 required for the bells, brings the total estimate to £836.

THE CHARTERHOUSE: IN THREE ASPECTS.

THE STORY OF ITS FOUNDATION.

BY GEORGE PATRICK, A.R.I.B.A.*

IN the year 1348, in the reign of Edward III., a terrible pestilence devastated London, for the dirt and crowding of the old mediæval cities made them at all times nurseries of infectious disease. Commencing in the Eastern Counties the plague spread all over London, and then to the Western Counties. The Plague of 1348 was so terrible that it is said grave-diggers could hardly be found to bury the dead, and many thousand bodies were carelessly thrown into mere pits dug in the open fields. Ralph Stratford, the then Bishop of London, shocked at these unsanctified interments, in his zeal to amend the evil, consecrated three acres of waste ground, called *No Man's Land*, outside the walls, between the lands of the Abbey of Westminster and those of St. John of Jerusalem at Clerkenwell. He there erected a small Chapel, where masses were said for the repose of the dead, and named the place Pardon Churchyard. The Plague still raging, Sir Walter de Manny, that brave knight whose deeds are so prominently recorded in the pages of Froissart, purchased of the

BRETHREN OF ST. BARTHOLOMEW,

a piece of ground called the Spital Croft, which the good Bishop Stratford also consecrated. The two burial grounds were known as New Church Hawe. Stone mentions a stone cross in this cemetery recording the burial there during the pestilence of 50,000 persons. Charterhouse presents itself to us in three aspects: the Monastic, the Historical and Domestic, and the Scholastic. In 1361, Michael de Northburgh, Bishop Stratford's successor, died, bequeathing the sum of £2,000 (about £4,000 in our money) for founding and building a Carthusian Monastery at Pardon Churchyard, which he endowed with all his leases, rents, and tenements in perpetuity. He also bequeathed a silver enamelled vessel for the Host, and one for the Holy Water, and all his books of divinity. Sir Walter de Manny, in 1371, founded a Carthusian Convent, which he called "The House of the Salvation of the Mother of God." This he endowed with the 13 acres of land which Bishop Stratford had consecrated for burial, and with the consent of the General of the Order. John Lustote was nominated first Prior. The Order of the Carthusians, as is generally known, was founded by Bruno, a priest of the Church of St. Cunibert, at Cologne, and Canon of Rheims, in Champagne, in 1080. The term Carthusian is a curious corruption of the French Chartreux. Not content with the rigorous rule of St. Benedict, the founder imposed upon the order rules so severe as to be almost intolerable, and this was probably the reason that even in the time of their greatest extension they never possessed more than 19 establishments all over the country. One of the peculiarities of the order was that they did not live in cells, but each monk had a separate house in which were two chambers, a closet, a refectory and garden. They were compelled to fast at least one day in a week on bread, water, and salt. They never ate flesh at the peril of their lives, nor even fish, unless it was given them as alms. As a rule, they lived on pulse and bread and water. They slept on a piece of cork with a single blanket to cover them. They never spoke to one another except on festivals and chapter days. Their laws professed to limit the quantity of land they should possess, in order to prevent the luxury and wealth so prevalent among the other orders. They wore hair-cloths, two cowls, &c., all of the coarsest manufacture, contrived so as almost to disfigure their persons. Their rigorous laws seem to have prevented the increase of their order. The Charterhouse had flourished for nearly three centuries in prosperity. The monks still enjoyed their high reputation for severe discipline and holy life when the storm of the dissolution broke upon them. In 1534, John Houghton, the prior, and Humphrey Midylmore, procurator, after being sent to the Tower for a month, were released on signing a certificate of conditional conformity. John Houghton, the last prior, was executed with several of his brethren at Tyburn, May 4th, 1535, his head set on London Bridge, and one of his limbs over the *gateway* of his own convent (supposed to be the perpendicular *arch* forming the entrance to the old Hospital). The majority of the brethren refused to recognise Henry's supremacy, chiefly because they objected to Henry's divorce from his wife; they had to suffer much from Henry's persecutions in consequence. The exertions, however, of the Confessor to the Brigettine Convent at Sion House, led the refractory monks to subscribe to the King's supremacy. The monks, however, had not long to rest. In 1537 the Charterhouse Brothers refused to acknowledge Henry as the supreme head on earth of the English Church. Some who had previously yielded now refused to obey, and were at once hurried to prison. Nine out of ten brothers cruelly handled in Newgate, were literally starved to death. The remnant of the order sought refuge in Bruges. Returning in 1555, they were reinstated at Sheen, near Richmond, by Cardinal Pole, but Elizabeth soon expelled them, and they fled to Nieuport, in Belgium, where they remained till the suppression of religious orders by Joseph II. in 1783. The Governors of Charterhouse are 19 in number. With regard to the building itself, three sides of a small quadrangle, an early addition, if not coeval with the building of the Monastery, still remain; the windows and doorways give evidence of great variety of structure and of date, and the joints of the brickwork are proofs of many alterations. The cells of the monks which were in the quadrangle, in the centre of which the water conduit stood, have all been destroyed, with the exception of some few doorways still remaining.

THE BUILDINGS OF THE MONASTERY NOW EXISTING

are on the south side of that quadrangle; they include the chapel, the small quadrangle already mentioned, and the courts of Howard House, including the Great Hall and the court called the Master's Court. At what time these buildings were erected between the ancient flesh-kitchen, the small quadrangle to the west, and the prior's lodgings to the north, has not been discovered. As we enter Charterhouse Square from Carthusian Street the entrance to the old hospital is on the north side. The gateway is the original entrance to the Monastery. This is an interesting relic of a Tudor arch, with a dripstone terminating in plain corbels. Above is a shelf, supplanted by two lions grotesquely carved, and probably dating back to the early part of the sixteenth century. An arched passage on the left of the Master's Court leads to Washhouse Court. A porch, surmounted by the Royal Arms, brings us to the Great Hall and Kitchen, and a passage on the right conducts us to Capel Court, which is screened by buildings to the south and west, by a piazza on the north, and by the chapel on the east.

The Chapel Cloister consists of six Italian semi-classical arches, clumsy and altogether unsuited to the purpose of the place. At the east end a door leads to the ante-chapel through which you have entered, and the south wall of which was repaired in 1842, under the direction of Edward Blore, architect. The equilateral arch at the east end leading to the main Chapel is conjectured by the best authorities to have been the nave arch of the original Monastic Church. It is filled up with a carved wooden screen consisting of a series of pointed cinque-foiled arches. The Chapel is a thorough Jacobean structure. The present chancel is supposed to be part of the original nave. A small paved hall leading from the cloister is the approach to the Great Oak Staircase of Norfolk House, richly carved with shallow old Elizabethan trophies and ornaments, the Sutton crest (a greyhound's head) showing conspicuously on the posts, probably additions to the original staircase, which is 6 ft wide and consists of 21 steps. The Governor's Room, part of the old Norfolk House, is situate next to the Library, and is remarkable for its *Elizabethan* decorations, which are of the most magnificent description. The ceiling is flat, and is adorned with the armorial distinctions, three white lions, of Thomas, Duke of Norfolk, elaborately painted and gilt. The tapestry on the walls consists of six pieces. In the windows are some curious fragments of stained glass, and most of the lead connections are the

SAME AS ORIGINALLY PUT IN.

The chimney-piece is an addition by Mr. Sutton, and is of later date than any other part of the building. In conclusion, I will only mention that the priory founded by De Manny was first set apart (after its dissolution) by King Henry VIII. as a place of deposit for his tents and pavilions. It was subsequently given by the King to Sir Thomas Audley, Lord Chancellor, by whom it was sold to Sir Edward North (Baron North of Kirtling). Lord North afterwards parted with it to John Dudley, Duke of Northumberland, on whose execution in 1553, by a grant of the Crown, it again reverted to Lord North, who died at his house called the Charterhouse, on December 31st, 1564. In 1558, when Queen Mary died, Lady Elizabeth took up her quarters for five days in this mansion of Lord North's, where she held a council each day. In 1565, Roger, second Lord North, sold it to Thomas Howard, Duke of Norfolk, on whose execution and attainder it again reverted to the Crown. Queen Elizabeth subsequently granted it to the Duke's second son, Thomas, afterwards Earl of Suffolk, founder of Audley End in Essex. In 1611, Lord Suffolk sold it to Thomas Sutton, on May 9th, for £13,000, and on the following June 22nd, Sutton endowed it as a charity by the name of the Hospital of King James. Sutton died the same year before his work was completed, and lies buried in the Chapel of the Hospital, where a sumptuous monument has been erected to him; the work was executed by Nicholas Stone and Mr. Jansen, of Southwark. We have all read of the

SENSATION WHICH THIS BEQUEST CREATED,

and of the condemnation it met generally, as it was considered as unjust to the testator's family. Lord Bacon, in his paper of advice to the King



-GROUND-FLOOR-PLAN.-

-SCALE-

PLAN OF PROPOSED BANK, HALIFAX; BY W. R. NUNNS.

* Extracts from a paper read before the British Archæological Society.

touching Sutton's estate, foretells many of the evils which in course of time grew up in the degeneration of the institution. But these latter have been to a great extent remedied. The foundation, as ultimately adopted, comprised a hospital for pensioners and a school for the maintenance and education of 40 boys, who are to be not above 14 or under 10 years of age at the time of their admission.

OLD INNS OF CHANCERY.

THE LAST OF CLEMENT'S INN.

SINCE the old days of Clement's Inn many and varied alterations have been made until now quite a different aspect is presented, and Clare Market is almost as respectable as Covent Garden. One almost marvels at the change the last few months have wrought. There is nothing now left of "Clement's" but a single doorway, standing erect, with neither house nor passage attached, among vast heaps of bricks and rubbish. Those who knew the place as an Inn of Chancery, famous in Shakespeare and beloved of Dickens, can scarce wonder that it is gone. For all these, curiously enough, seem elements of decay. It would be foolish to murmur because the number of places in modern London which Shakespeare knew grows smaller every year. Time lays his hand upon the poet's haunts none the less lightly because his works are immortal. As for the Inns of Chancery, London is losing them as fast as the Ancients, their supposed owners (for there has always been a question about the right of sale), can find purchasers. Sometimes they have been bought to keep intact. Barnard's Inn has passed to a City Company, and its buildings are now a school. Staple Inn exists by favour of an insurance company, to whom its Ancients sold it for £68,000. These two still stand. But of the three Inns clustered near St. Clement Danes, Lyon's and Clement's are now obliterated. New Inn, happily, still retains its character, while it belies its name. New Inn is really old, and still shows some old red-brick and mullioned windows, with a glimpse of red tiles overhead. It is another world, from Clare Market on the one side and Wych Street on the other. How long it will be before New Inn renews its youth and blossoms out in eligible flats it is impossible to say, but assuredly not long. There is no doubt that the improvement of Clare Market is the forerunner of a scheme which will eventually rebuild this part of London. So long as Clement's Inn had the moral support of Clare Market it might still have hoped to stand. But with the opening up of that most congested district Clement's Inn was an anachronism. One loitered through its prim square, looking at the red-brick hall, with facings of white stone, and the quaint doorways with the coat of arms, the eaves, the rambling buildings with their waste of room. It was all in the style of Queen Anne, most comfortable and picturesque; but it was plain how poor a comparison it would make with modern plans. Now, as one passes down Clement's Lane, instead of the old red roofs one sees a pile of six windows, one above another—a little further down and there are seven. So that, if symmetry be considered, new Clement's Inn will rear eight eligible flats up to the sky. The decay of Clement's Inn has been a very gradual process. There has been no summary destruction such as that of the Rolls Chapel, for example. Many years ago a handsome gateway marked the entrance to the Inn from the Strand. This was destroyed to make room for the grounds of the Law Courts, and from that time the tide of outside London has rolled slowly in. There is a curious history surrounding an old sun-dial which stood in the gardens for a century or more. It was brought from Italy by Goldsmith's Lord Clare, and presented to the Ancients of his day. The dial was supported by the bronze figure of a negro boy, who was a familiar landmark and by-word in the legal and literary world. At one time it was the fashion to string lampoons and scurrilous verses round his neck, and much pretty wit was wasted, or survives only by tradition among tenants of the Inn. The Inns of Chancery, of which Clement's was the most important, have long outlived their legal use. They were at one time preparatory schools for the Inns of Court, to one of which they were each attached. Clement's Inn was joined to the Inner Temple, whose rule it finally repudiated some years ago—perhaps as a preliminary to sale.

Where the Globe and Opera Comique Theatres now are once stood Lyon's Inn, an Inn of Chancery belonging to the Inner Temple, and governed by a treasurer and twelve ancients. So far back as the reign of Henry V. Lyon's Inn was an Inn of Chancery, and, according to George Buc, had originally been a guest house, or hostelry held at the sign of the "Lyon," and was purchased by gentlemen professors and students in the law, and converted into an Inn of Chancery in the reign of Henry VIII. It is apparent that, however true this history may be as to the origin given, the date is not correct. In the reign of Edward VI. Strand Inn was taken from the Middle Temple to make way for Somerset House, and the Society of the Middle Temple, backed by the two Chief Justices, endeavoured to acquire Lyon's Inn. They would probably have succeeded but for the interposition of Robert Dudley, afterwards Earl of Leicester, who sometime dwelt at what was subsequently Essex House, Strand. Lyon's Inn, as it appeared in its last days, was a quaint old place, the buildings, or some of them, dating from the year 1700. It had one entrance from Holywell Street and another from Newcastle Street. The one small court was cheered in summer by the foliage of its trees; along the north and east sides stood the chambers; and in the south-west corner was the hall, whose front elevation, topped by a pediment, bore a lion rampant. In 1863 the members sold Lyon's Inn, and it was demolished. Until a few years ago, however, Holywell Street retained a relic of the place in the carved "lyon's head." By the side of "Ye Half Moon"—a shop which retains the last old London sign *in situ*—there runs an alley into the Strand, called Halfmoon Passage. By this alley formerly stood an old timbered house to which the "lyon's head," painted red, acted as a corbel. When the timbered house was removed the "lyon's head" found a shelter at the Guildhall, where it may still be seen.



COMPETITION DESIGN FOR NEW BANK, HALIFAX, BY W. R. NUNNS.

AT Rye, new Wesleyan schools are to be built to replace the present incommodious premises, at a cost of £1,500.

THE Darwen Corporation has appointed Mr. Smith Saville to the position of Borough Engineer, at a salary of £350 per annum.

A QUANTITY of excellent clay has been found on the Peniarth Estate, Towyn, and experts who have been engaged to test its qualities report that it is eminently suitable for brickmaking.

TWO excavators in the employ of the Manchester Corporation were overpowered by sewer gas last week, and one of them, Charles Jones, lost his life. The second man lies in a dangerous condition.

A NEW Congregational mission church has been opened at Gidlow, Wigan. The building occupies half the site; the other is to be covered in the near future by a suitable church. This first instalment of the scheme has cost £1,500.

THE Sanitary Committee of the Manchester City Council visited London last week for the purpose of inspecting the lodging-houses of the London County Council and Lord Rowton's Company in operation.

IN regard to the movement, initiated under the presidency of the Prince of Wales in 1890, to raise a memorial to Nelson in the parish of Burnham Thorpe, Norfolk, it is proposed to restore the Parish Church, and to build a Nelson Memorial Village Hall. The estimated cost of a complete renovation of the old sanctuary and its important annexe is £6,000, and of this amount £4,000 has been subscribed.

Professional Items.

BRIERLEY HILL.—The new Infants' School at Quarry Bank, which the School Board propose erecting, is to be shortly commenced. The tender of Messrs. J. Bishop and Sons for the erection of the school for £2,351 has been accepted. The building is intended to accommodate 430 infants.

SHEFFIELD.—Queen Street Congregational Chapel, Schools, Visitors' Class-rooms, and Lecture Hall have been cleaned and painted, and the organ has been cleaned and tuned. The painting and decorating work has been carried out by Mr. J. Puttrell, from the design of Mr. Arthur White, of the School of Art.

BELFAST.—A new Mission Hall is being erected in Bellevue-streeet, Belfast, by Messrs. H. and J. M'Kibbin, with Mr. Charles A. Aitken as Architect. The hall will accommodate 250 persons with comfort. It is being constructed by the congregation of the Argyle Place Presbyterian Church, and will cost upwards of £450 when completed.

STOW-ON-THE-WOLD.—A Drinking Fountain, including horse and dog troughs, has been presented to the town of Stow-on-the-Wold by Captain Piers Thursby. It is late Gothic in design, and is of Farmington stone, with oak doors to the cistern recesses. It was designed by Messrs. J. E. K. and J. P. Cutts, and built by Mr. M. Hookham, at a cost of about £90.

DESFORD.—New Sunday Schools, in connection with the Baptist Chapel, were opened on Thursday. The new Schools consist of two small rooms—each capable of holding 40—on the ground floor, and one large room upstairs. This, which is made with sliding doors, so that it can be opened into the Chapel if necessary, will provide accommodation for about 120 children. The cost is about £500, but that includes the expense of renovating and redecorating the chapel.

CLYDACH.—Memorial stones of the new Welsh Congregational Chapel at Pantycrwys, Clydach, were recently laid. The new Chapel, which has to be built in consequence of increasing congregations, will be a combination of Norman and Roman Architecture. It was designed by Mr. Wm. Williams, Architect, and Instructor in Building Construction at the Government Schools of Science and Art, Swansea. Messrs. Thomas and Jones, Morriston, are the contractors for the building.

WHITLAND.—The Intermediate School built on a site given by Mr. John Phillips, Clydach Vale, was opened last week. The school, which faces Pwllyhead Road, will accommodate 100 pupils. The building was erected from the designs and under the supervision of Messrs. Griffiths and Jones, Tonypandy and Pontypridd, whose plans were selected by the local managers in an open competition. The contractors were Messrs. Rowlands and Lloyd, Trealaw, Glamorganshire, the painting being executed by Mr. G. Williams, Whitland.

LEEDS.—The Corporation has under consideration a proposal to provide a Dead-Meat Market, with abattoir and refrigerator, and also a small Cattle Market which would meet the present requirements. In many of the great towns on the Continent such establishments are found of great value. The site suggested for the purpose is the ground abutting upon Kirkgate Market—a part of the insanitary area extending eastwards, with York Street and Duke Street in the immediate vicinity. This, it is urged, would be a central, and therefore convenient, situation, and the new institution would be a desirable addition to the existing markets.

EASTBOURNE.—The authorities have under consideration an offer from Mr. James W. Hobbs, of 28, Pevensey Road, Eastbourne, to supply to the pumping station at Bedford Well Road, Eastbourne, pure fresh soft water, suitable for dietetic and domestic purposes, to the amount of 2,000,000 gallons daily. He is prepared to do all the necessary boring, build engine-house, supply engines and pulsometers, and lay a double or twin 12-in. main from Herstmonceaux to the Bedford Well Pumping Station, to acquire all rights of way, purchase land, pipes, machinery, &c. (Parliamentary proceedings excepted), for the sum of £100,000, subject to certain conditions.

LLANELLY.—The new Town Hall being completed, the Borough Council is carrying out a scheme which will make the approach to the hall one of the finest in Wales. A portion of the River Lliedi is now being bridged over so as to give a broad thoroughfare from the Town Hall to the junction of Stepney Street and Salamanca Road. The awkward corner at Bradbury Hall will be removed as soon as the lease on this house expires, and it is stated that an hotel will be built upon the site. When this scheme has been carried out there will be a public square in front of the municipal buildings. The work of bridging the river is now in progress, the contract having been let to Mr. T. P. Jones.

LEEDS.—Messrs. Joseph Smith and Margerison, Valuers, Bradford, have recently completed valuations for the Bramley Assessment Committee of all the important properties in the Union, which is part of the borough of Leeds. The London and North Western, Midland, North Eastern, and Great Northern Lines and Stations come out at—new ratings, £36,994, old ratings, £27,432, which is an increase of £9,558. The Leeds Corporation Gas and Water Works and Tramways new ratings, £10,201, old ratings, £5,190, show an advance of £5,011. And for the Assessment Committee of the Malton Union: The North Eastern line of Railway and Stations in Townships, new ratings, £23,564, old ratings, £18,766, which is £4,798 increase.

HARROGATE.—The Cottage Hospital has been enlarged and extended to provide 17 more beds. The "Clarence" wing, as the new part is called, is located at the rear of the building. The cost of the new enlargement scheme is about £2,800. The contractors for the works are:—Simpson Brothers, Harrogate, mason's work; J. W. Rudd, Harrogate, joiner; Laycock Brothers, Harrogate, plasterers; Suttill and Son, Otley, plumbers; John Cook, Huddersfield, concrete; Charles Auty and Co., Leeds, ironwork; D. E. Hutton, Shipley, painter; O. Atkinson, Harrogate, heating apparatus; Harrogate Gas Company, gas fittings, &c. The whole of the alterations and additions have been carried out to the plans of Mr. T. E. Marshall, Architect, of Harrogate.

PORTH.—Situated on an elevation on the main road about half a mile from the Porth Railway Station, the Rhondda Intermediate School was opened last week. The structure has cost about £5,000. The building includes an assembly-hall, divided into two parts, one for boys and the other for girls; four class-rooms, to accommodate about 32 scholars each; a laboratory, which is now being fitted up at a cost of over £300; a commodious cookery-room, and four private rooms for the masters and mistresses. A caretaker's house is also being built, and large dining-rooms for the scholars. The whole of the institution is well ventilated and lighted, and warmed by a combined system of hot-water apparatus and open fireplaces. The Architect was Mr. Jacob Rees. The builders were Messrs. George Jenkins and Sons, Porth.

GRANGE-OVER-SANDS.—A new Convalescent Home is now being built for the Friendly Societies of the North-Eastern Counties. The Home is built of the local limestone, with red sandstone dressings, and covered with blue Welsh slates. It is built in the pavilion style of hospital planning, having the administrative block in the centre for a tower, and the dormitory and dining-room wings on each side in the form of the letter L. For the present, only the administrative block and one wing will be built; it is hoped that funds may be forthcoming to build the other wing, and so complete the scheme. The entrance is placed on the west side in the administrative block through a glazed porch into the entrance hall. The hall is 10 ft. wide, and gives access to all parts of the Home. Immediately to the right is the door leading into the dining hall, a room 30 ft. long by 22 ft. wide, lighted by two three-light mullion windows on each side. Out of the dining-room is the day-room, 27 ft. long by 22 ft. wide, and all necessary accommodation has been arranged for. The cost of the Home will be about £3,000. The plans and specifications have been made by Mr. John Hutton, M.S.I., Architect, Kendal, under whose superintendence the work is being carried out.

OBAN, N.B.—Through the generosity of Mrs. Parr, of Killichronan, Mull, the West Highland Cottage Hospital has just been opened. It has cost £2,600. The plans were competitive, and out of a large number sent in, those by Mr. Woulfe Brenan, Architect, Oban, were selected as the best, and his design has been carried out in full. The site is on an eminence on the Glencrutten Estate, just on the borders of the town of Oban. The building is treated in the cottage style, and is of "Bonawe" granite with freestone dressings, the ridges are of red tiles and the chimney stacks are of the same material. The large wards are heated with Shorland's Manchester Grates, and the other grates, kitcheners, &c., have been supplied by Messrs. Graham and Morton, of Stirling. Messrs. D. and A. Munn, Oban, are the contractors for the mason and joiner works, the other works being let as follows, viz., plumber, P. Crawford; plasterer, P. MacCallum; slater, W. Proctor; bells and gas, J. Campbell; painter, Alex. Gray, all of Oban. As at present designed the accommodation is for 12 beds, besides two private wards and nurses' accommodation, and the arrangement has been so provided that with no disturbance nearly double the capacity can be given to the public wards when extension becomes necessary.

EDINBURGH.—Mr. Morham, City Superintendent of Works, has recently submitted sketch plans of the new Fever Hospital buildings to be erected at Colinton Mains. The committee approved generally of the plans, and instructed Mr. Morham to have them lithographed and described, so that they might be taken into further consideration. The buildings, which bear a considerable resemblance to the plan of the Royal Infirmary, will be reached on the west by a road passing Craiglockhart Hydropathic, and at the east by a road, about three quarters of a mile in length, running from Comiston Road alongside the road leading to the Poorhouse. In the centre of the buildings are the administrative offices, including the servants' and nurses' homes, these pavilions being three storeys high. To the east of the main corridor are the scarlet fever wards, two storeys high, and including observation and isolation wards. The west side is occupied by wards for diphtheria, typhus, typhoid, &c. The smaller of these wards are only one storey high, and the remainder two storeys. A temporary hospital is provided at the north-west corner of the grounds, and at the north-east are the men's quarters, ambulance, museum, and mortuary; while on the south-east corner the laundry, wash-houses, boilers, &c., are placed.

SAUGHALL.—The new Church of All Saints', Saughall, between Chester and Hawarden, was recently dedicated by the Bishop of Chester. The plan consists of Nave, with north Aisle of four bays, Chancel, with Organ Chamber on the north and Vestries on the south, a west-end central Baptistery, and a south-west Porch. The Nave is 54 ft. long and 24 ft. wide, and there is a low wall between the Nave and the Chancel, bayed out into the south-east angle of the Nave to form the base of the Pulpit. Three steps lead up from the Nave to the Chancel, which is 26 ft. long and 18 ft. wide, with apsidal east end. Open Screens on the north and south screen it from the Organ Chamber and Vestries. Over the western portion of the Chancel is arranged a low Tower with a broached Spire, covered with shingles. The walls of the Church are faced outside and in with red brick, with a dado inside the Nave of brown glazed bricks. The sills and dressings are of terra-cotta. The open timber roofs are boarded inside, and covered outside with tiles. The portion so far built, and which has recently been dedicated, is the Nave, with the Baptistery and south-west Porch, temporary walls being built east of the Chancel Arch and in the arches of the north Arcade. This portion will accommodate a congregation of about 200, and has cost about £1,300. The Church has been designed by Mr. Medland Taylor, of Manchester, the contractor being Mr. W. W. Freeman, of Chester. Messrs. Haden and Sons have executed the work in connection with the heating, which is by hot water,

DRIFFIELD.—The Wesleyan Chapel has been reopened after undergoing renovation, at a cost of over £200. The work has been carried out by Mr. J. R. Wilson, of Driffield.

BARNSLEY.—The Parish Church of Ardsley has been reopened. The Church was built in 1842, and underwent a slight restoration in 1871. The present cost is about £230. The inside of the Sanctuary has undergone a complete change, open Stalls of pitch-pine having taken the place of the old high-backed Pews, which were of plain deal.

CLITHEROE.—The Corporation has purchased the premises occupied by Messrs. Bailey Brothers, in Market Place, Church Street, and York Street, adjoining the Town Hall, the price paid being £1,850. It is proposed to utilise the whole of the buildings for Town Hall and Corporation Offices, but it will probably be some years before the scheme is carried out.

NEW BRIGHTON.—The parishioners of New Brighton are collecting funds for the erection of a permanent Church on the site of the present Mission Church of Emanuel. The cost of the Church, when completed, is estimated at £5,000, but it is intended at present to complete the Chancel and two Transepts in brick and stone, retaining the present iron building as the Nave. This will add additional accommodation for 250 persons.

BELPER.—New Technical Schools have just been completed. The school was founded in 1637, by Grace Lady Manners, the widow of Sir George Manners, the lord of the Manors of Haddo and Bakewell. To the money accumulated the County Council granted £600, and as a result of great efforts a school has been erected. The Duke of Rutland, in opening the school, spoke on the importance of technical education. Historically the craftsmen of Derbyshire occupied a very important position, and in proof of that they had but to go to Haddon Hall and look at the brass, iron, and wood work there. The London Fine Arts Club had that day asked him to allow the old enamelled fire-dogs to be lent for exhibition.

INVERGOWRIE, N.B. — All Souls' Episcopal Church was last week consecrated by Bishop Jermyn. Designed by Mr. Hippolyte J. Blanc, Edinburgh, this Church was built by Frances, the Dowager Lady Kinnaird, in memory of her husband and children, and, although the building was practically finished two years ago, the consecration ceremony has been delayed owing to a defect having been discovered in the roof. The edifice comprises Nave, Transepts, Choir, and Chancel, with accommodation for 300 worshippers, besides Vestry and Hall for school services, and is surmounted by a spire rising to a height of 140 ft. Internally, the design, as a whole, as well as the details of structure and furnishing, leave nothing to be desired—the Chancel being particularly beautiful. The Pulpit is of handsomely-carved stone, and the Lectern of fine brass work. A side Altar in the South Transept was constructed from materials forming the old Altar at Rossie Priory Chapel.

SPARKHILL.—The new Police Station is well forward in construction. A most suitable site has been chosen—the piece of land in the Stratford Road at the corner of Little Showell Green Lane, Sparkhill, and the building will be of red brick with stone facings. The new police office will be surrounded by the Women's Hospital, facing it, St. John's Schools on the south side, and St. John's Vicarage at the rear of the premises. It is being built by Mr. Frank Davis, contractor, of Showell Green Lane, Mosely, under the direction of Mr. J. Wilmot, Architect, of Waterloo Street, and when finished, about March next, will comprise an office with four cells, and living accommodation for a superintendent, inspector, or sergeant, and another officer and his family. The office door will be in the angle of the building at the corner of Little Showell Green Lane, and the sides will have embattled fronts.

SWANSEA.—A special meeting of the Swansea Harbour Trust will be held next week to receive and consider the report of the Harbour Superintendent (Mr. Law) and the Engineer (Mr. Schenk) as to the advisability and practicability of floating the Harbour. The question of the floating of harbours is of great importance. It has excited considerable interest, not only in Swansea, but also in the engineering world, and has been discussed with much warmth by experts. Strenuous efforts have been made in Swansea to induce the Harbour Trustees to give the matter that thought and attention it deserves. Until the report, which is nearly ready, of the Harbour Superintendent and Engineer has been dealt with, the proposed improvements to the North Dock will not be entered upon. There is no doubt that the floating of the Swansea Harbour would entail the expenditure of a very considerable sum of money. We understand that the Harbour Superintendent and Engineer, who have given the question very close and serious attention, hold the same opinion with regard to the floating of the Swansea Harbour as did Sir Wolff Barry of the floating of the Avon. Some time ago the Bristol authorities instructed Sir Wolff Barry to report on the matter, but he killed the enthusiasm of the promoters of the scheme, by estimating that it would cost £2,580,000.

WHITTINGTON.—Destroyed by fire on January 29th, 1895, the new Parish Church was opened last week. The edifice, which is in type Transitional, between the Early English and Decorated periods, has been rebuilt on the original lines, and consists of a Nave, North and South Aisles, Chancel, Organ Chamber, Vestry, Baptistery, Tower, Porch, and Warming Vault. The Nave is 62 ft. long by 24 ft. wide, with stone Arcade, on which the Clerestory is built. The North Aisle is in length similar to the Nave, and 12 ft. wide, whilst the South Aisle is 40 ft. long by 12 ft. wide. The difference in length of the two Aisles is accounted for by the Tower, which stands at the south-west angle of the Church. The Chancel is 27 ft. long by 18 ft. wide, the Vestry 17 ft. by 13 ft., and the Organ Chamber 12 ft. by 11 ft. The roofs are open timbered, the Chancel being of oak. The Nave, Organ Chamber, and Vestry are paved with pitch-pine blocks on cement concrete, the Aisles with Ruabon tiles, and the Chancel with encaustic tiling. The general contractor for the work was Mr. James Fidler, of Eckington, with the following sub-contractors:—For joiner's work, Mr. George Stevenson, Eckington; for plumbing, Messrs. Mellowes and Co., Sheffield; art metal work, Messrs. Hardman, Powell, and Co., Birmingham; encaustic tiling, Messrs. Maw and Co., Jackfield, and Messrs. Edwards, Ruabon; stone carving, Mr. John Holden, Sheffield; the whole having been executed from the designs and details, and under the superintendence of Messrs. Rollinson and Son, Architects, of Chesterfield.

SOCIETY MEETINGS.

Bristol and Gloucester Archæological Society.—The autumn meeting of this Society was held at Cirencester on Thursday. After a meeting of the Council at 10.30, a general meeting was held at 11.15 at the Church Institute, Mr. Wilfrid Cripps, C.B., presiding. The revised code of rules adopted at the Monmouth meeting was confirmed, and a vote of thanks was passed to Mr. Palmer Hallett, and those associated with him, who drew up the rules under which the Society had been conducted for 20 years. An interesting paper by Mr. Ernest Whatley, the Local Secretary, on a recent find of skeletons at the Barton, and two short papers by the Rev. E. A. Fuller on two incidents in Cirencester history, one on Sir Robert Morton's will and the other on the relations between the abbot and the townsfolk, were directed to be printed in the Society's transactions. After some members had visited the Corinium Museum (under the guidance of the curator, Mr. C. Bowly), Mr. Wilfrid Cripps's museum, and the fine parish church, a carriage excursion followed. Daglingworth was the first visited, where the members inspected the remains of a cell of the Nunnery of Godstow, and close by a very perfect pigeon-house or culver-house, with the original potence or revolving ladder. The fifteenth century cross in the churchyard was noted; and the interesting Church of the Holy Cross, which is undoubtedly of Saxon origin, was examined with care. Some curious rude sculptured tablets, of Saxon-Celtic origin, were explained by Mrs. Bagnall Oakeley. Pinbury, in the parish of Duntisbourne Rolls, where the great Gloucester historian, Sir Robert Atkyns, lived, dying there in 1711, was the next halting-place. Thence driving to Sapperton, the Church of St. Kenelm, rebuilt by the Atkyns family in the first decade of the eighteenth century, was inspected. It contains a handsome monument to Sir Robert Atkyns, whose Manor House stands close by. Much of the Jacobean oak formerly in the Manor House is now in the church. It was intended to visit Coate's Church, but time did not permit, and the party then visited Bullasey Wood, supposed to be the site of a Saxon village. Some 30 buildings have been traced in this wood, and four of them have been excavated by Mr. Biddulph. Few remains were found, only two pots, supposed to be of the Romano-British period (after the Roman occupation). No traces of Roman civilisation have been found, and it is thought they were dwellings of the British after the Romans left Britain. In any case, there can be little doubt that it is the site of a considerable village, and further investigations will be awaited with interest.

Glasgow Architectural Association.—On Tuesday, the 22nd inst., Mr. F. H. Newbery delivered a lecture at the rooms, 187, Pitt Street, entitled, "The Sum of Tradition." "We," the lecturer said, "are students chosen by ourselves to become workers, artists. We are heirs of tradition, are born into it, and must exhaust it before we can give to the world that something which it is in our power to bestow. One of the sums of tradition possessed by the Greeks was that they knew the human figure and recognised its value in Architecture. All great artists are great assimilators. Michael Angelo possessed this quality in its fullest degree. Don't be afraid of being considered eccentric or insane. The men who think in front of the rest of the world are firmly believed to be mad. Tradition is to an artist what money is to a millionaire. Wealth is very necessary to the artist, as he is in the power of the man who possesses it. There is too much respect paid to riches and to tradition. No Architect can design properly, till he has learnt to do without consulting existing authorities. Some of the work at our English Cathedrals was designed by men who carried their knowledge at their finger ends. Tradition to-day is too near. The sketch book is too easily referred to, the photograph too much utilised, and the plaster cast is simply a text without a sermon. Let us then endeavour to learn what tradition is and what it means, and, having learnt this lesson, accept its responsibilities accordingly." A vote of thanks terminated the proceedings.

Correspondence.

CROYDON LUNATIC ASYLUM COMPETITION.

DEAR SIR,—The drawings submitted in the above competition are now on view, and during the next few days will be the subject of much criticism. There is one feature of this competition to which I wish to call particular attention, as it seems to have been entirely overlooked by the assessors in giving their award, and is highly discreditable to the majority of the competing Architects. I refer to the fact that out of some 16 sets of plans submitted, in only three cases or so has the question of sewage disposal been considered, although it is essential that means should be devised for its distribution on the land acquired for that purpose. In the three premiated designs the sewage outfall or settling tanks are shown at the *lowest* point of the site. The authors of the first premiated design are content to leave the sewage there apparently to distribute itself on the adjoining land; in the second and third designs it is distributed uphill despite the unchangeable laws of gravitation. It can be no excuse in this case to urge that the necessary levels were not given on the plan of site; the mere fact of showing drains on the drawings presupposes that the author is cognisant of how the land lies. The premiated designs are to be submitted, according to the conditions, to the Lunacy Commissioners and the Local Government Board. Their decision is awaited with interest by

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LIVERPOOL MUSEUM BUILDINGS EXTENSION COMPETITION.



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Mediæval Morris.

WILLIAM MORRIS was so mediæval a man by temperament that the curious and casual contradictions of his character were not in any way the outcome of caprice. His was one of those romantic and mythical minds singularly unadapted to our time, and yet responsible for all the glamour we get out of life. He began, one would have thought, in the right element—the Ecclesiasm of George Edmund Street's office—and found it irksome. His love of Gothic could not stand vaulting; he had to come into the open air; to the pleasances of English soil; to the deep, knightly woods of chivalry, for happy thought and robust breathing. He was in no way English, and yet he loved the Earlier English ages; and, when once passion seemed dawning on his poetry, he fell back upon Chaucer and "The Canterbury Tales." It is not to be expected that the note of archaism can ever sound the ringing note of patriotism, and we have always thought that there was something haunting, pathetic, but forlorn in the verse of Morris: "Lulled by the singer of an empty day." There was something lucent in all his verse and songful: too voluminous, doubtless, and foreign to our lore. Of his books we may say the same with the saving clause that they were sweet and trepidant or venturous phantasies, but always sweet; of distilled and pure English wording perfumed by wild essences of thought: no exotics. He was a master man at titles—in his way—and faëry, witness "The Roots of the Mountains," "The Glittering Plain," "The Wood beyond the World." He had his affinity to Spencer as well as to Chaucer, but though he had the grace, he had not the elegance of the one, and while he had the simplicity, he had not the humour of the other. He became too diffuse; he gave up his own singing message—never a mission—to translate Virgil and Homer; and, branching northward, the Sagas thralled him. The experiment, for a poet, is generally fatal, and William Morris never surpassed, in verse, "The Defence of Guinevere," though his "Earthly Paradise" was the signal for the more popular applause. He was a martinet, too, but in a kindly, bluff way, that reminded you of a hale sea-captain of Portsmouth or Plymouth in Nelson's time. But his mind was earlier than that, "a forest primæval," full of the mailed men, the clinging women of Walter Crane's pencil. There was, too, his Socialistic propaganda, which was so curious a paradox as to be a joke at which the uninitiated laughed. But he was quite in earnest, though in a dreamer's impossible way: a dreamer who could wake to strenuous language upon occasion. Ever, whether it be in books, or furniture, or wall-papers, a disciplinaire of high prices and peculiar independence, his Socialist scheme, or lack of scheme, was distinctly one of those contradictions which sprang from the man's temperament. The Kelmscott Press did nothing to bring Literature to the masses; we are full sure that the masses never heard of it; his early shop in Bloomsbury, his ultimate works near Merton Abbey, never filtered their furniture to plebeian homes; the upper middle class rarely grew to an extravagance beyond Morris's wall-papers. His distinctive work in Craft and Design flew at higher game, and found it in the halls of the nobility, the houses of the *nouveaux riches*.

But it is, after all, more than probable that the fame of the Morris wall-papers will outlast that of his poems, with the exception, perhaps, of the one or two lyrics which deserve to be perpetuated with the literature of the country. And one must always remember with gratitude that when Mr. Morris began his crusade against ugliness and bad work, the art of house decoration was at the lowest possible ebb. The furniture of the First Empire,



SWISS DOMESTIC GLASS, XVIITH CENTURY.

though somewhat meretricious in style, was, speaking generally, by no means lacking in taste. Its reign, however, ended by 1830, and from that time till some 20 or 30 years ago there was little produced which was not positively repulsive both in execution and design. The patterns on the walls and on the carpets were copied from the mechanical combinations of the kaleidoscope, instead of being due to the artistic feeling of a trained designer; while if tables and chairs could be designated as "curious" or "solid" in design, it was considered that the acme of perfection had been attained. Mr. Morris changed all this, and made the world understand that beauty need not be confined within the four corners of a picture frame, but might be introduced elsewhere into our houses.

THE INFLUENCE OF EARTHQUAKES ON ART.

THAT there should be an artistic side to the question of earthquakes appears, doubtless to many, very far-fetched, if not impossible, and yet, according to Professor John Milne, F.R.S., a little consideration will convince us that this remarkable physical phenomenon plays a most important part in the progress of the social and artistic life of those countries where it is in force, with which daily reckoning must be made. To our European mind, which but rarely has its gravity upset by the freaks and sport of Nature, it is at first difficult to appreciate how profound an influence such general instability in the conditions of life must exercise upon the character and development of inhabitants of countries like Japan. Hardly any other country has been more favoured by its physical character than Japan as regards Art materials, possessing, as it does, in abundance, a variety of the finest metals, china clay, and silk. Not unreasonably, then, she might have been expected to take a prominent place in the great Art creations of the world, and yet her position has never risen beyond the achievement of decorative work. The deeper significance of Art, the aspiration after and the expression of great conceptions, is entirely wanting. In other countries Art has sought

Expression in Architecture

in the raising up of colossal if not magnificent structures in temples, in tombs, in palaces, in castles. In Japan, however, all such work in the massive is rendered absolutely impossible by the difficulty of coping with the constant destruction of property which threatens the country in the shape of earthquakes. Hence their mind has never been accustomed to dwell upon the production of anything great or permanent, for wood alone is the material suitable for buildings, and about every 10 years, it is calculated, these are destroyed by fire. Nowhere is the absolute submission of the Japanese to the superior forces of Nature more evident than in their Architecture. It is true that repeated efforts have in the past been made to erect buildings of stone in these islands, and in a pamphlet published in 1599 by one Ludovicus Frois, we are told how the great Hideyoshi erected a palace which in magnificence and dimensions surpassed all previous efforts, his ambition tempting him even to add a tower to serve as a lunar observatory. Gold and silver were lavished upon its decoration, and for months hundreds of labourers worked upon it, when suddenly a terrible earthquake swept all away. Thus while

Stone as a Building Material

has had to be abandoned by the Japanese, and with it all conception of massive Architecture, the construction of their dwellings and temples has had to conform to what custom has proved will best withstand these earth convulsions. This has resulted in low one-storied houses made of wood, and the solemn proportions of their temples do not depend upon height but rather upon the superficial area which they occupy. In an ordinary dwelling firmly established, wooden walls are only to be found on two sides of the house; all the rest, as well as the interior partition, are composed of shutters which can be shifted with the greatest ease. Instead of glass, oiled paper fills the window spaces while the wooden frames over which paper or stuff is stretched divide up the interior spaces into rooms. To lessen the danger of these earth tremors the rooms are low, and even in the Imperial Palace, although length and breadth are given full sway in the proportions of the reception and official halls, yet in height they are extraordinarily wanting to the European eye. The Japanese in search of security also seat themselves upon the floor, and chairs and tables are unknown to them, while for beds mattresses are spread out likewise on the floor and are rolled up and packed away during the daytime. Thus the Japanese by nature and tradition exhibit a tendency to avoid giddy heights and to seek the lowest place, a tradition which, however, the last few years has shown Europe does not apply to their political aspirations. With such insecure walls there is no possibility of suspending works of Art in Academy frames, and hence their

Mural Decorations

take the form of strips of either silk or paper, upon which the artist has to elaborate and confine his ideas. These strips are hung up, and can be rolled up and packed away at will. Hence here again the scope of Art has been contracted, attention has been concentrated upon detail, and width of composition is sacrificed to depth of impression, and fineness of hand takes the place of breadth in execution. Much importance is attributed by the Japanese to their Art collections; indeed, the fortune of a family is often estimated by the value attaching to their collection of paintings, metal work, porcelain, &c.

COST OF KEEPING UP THE MANSION HOUSE.

In answer to the suggestion that the interior decoration of the Mansion House has been neglected of late years, the following figures will be read with interest, as they prove that the Lord Mayor's official residence, although it sadly needs attention at the present time, has been properly attended to. In 1887 £1,340 was spent upon it, this sum including £500 for tapestry; in 1888 £3,663 was expended upon decoration, repairs, &c., the amount including £2,052 for jobbing work for two years; in 1889 £3,851 was spent, including £310 for tapestry and £2,055 for drainage works; in 1890 £1,746 was spent, including £229 for drainage works and £152 for tapestry; in 1891 £1,930 was spent upon repairs and decorative work; in 1892 £2,180 was expended, including £300 for warming apparatus; in 1893 £1,305 was spent; in 1894 £1,527 was disbursed; and last year £1,708 was spent in works, repairs, furniture, cleaning, &c. The above-mentioned yearly expenditure only covers what has been spent upon the Mansion House as a dwelling, but does not include the cost of the installation and maintenance of the electric light and minor sums for miscellaneous purposes.

The "Carlotta" has arrived from Rockingham, W.A., with 514 loads of "Jarrahdale" Jarrah, to the order of Messrs. McLean Brothers and Rigg, Limited, 1, Fenchurch Avenue, London, E.C.

The Swansea Technical and Intermediate Education Committee has decided to adopt a scheme involving an expenditure of £10,000 on a new school. The present site of the Grammar School will be utilised, and the proposed plan will be exhibited before being finally approved.

Sir William Ingram has presented a picture to St. Saviour's Church, Westgate-on-Sea. It represents the Madonna and Child in the caves stable at Bethlehem, surrounded by a number of peasantry. It is painted on oak, and measures 6 ft. by 7 ft. This work of art was discovered hidden away in Revesby Abbey, Lincolnshire, and is believed to have been concealed to elude the despoilers of the churches during the Reformation.

Poolsbrook, near Staveley, is agitating for a better water supply, and a deputation of householders is to wait upon the Staveley Company, asking their assistance in getting a better supply of water for Poolsbrook, and to interview the Sanitary Authorities at Chesterfield, and demand a sufficient water supply. In one block of 12 cottages there had been no water for a fortnight.

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THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

MEN WHO DESIGN.

No. 3.

Mr. STEPHEN ADAM, of GLASGOW.

"MY early training in the Art of Glass Staining," said Mr. Stephen Adam, "was as an apprentice with the firm of Ballantine and Allan, Edinburgh, and in the Academy School in Edinburgh—subsequently in the Haldane Academy, Glasgow. In Design, I have been greatly influenced by the work of Rossetti, Burne Jones, Williams, Morris, and Pluvis Chavanne, in the French School; and, if I may speak confidently of my work as Colourist, in Colour I found my master in the late Daniel Cottier, the eminent glass painter. Yet to be in any way original one must think for one's self, and I have heard it said (with some pardonable pride) by artists of the now famous Glasgow School that my work in stained glass greatly influenced theirs in their early Art aspirations by imparting suggestiveness and strength to their decorative quality and balance of colour effect.

"Of my own aspirations and feeling for Art you must accept me as no Literary Man but as a simple Craftsman, passionately fond of my ancient Craft and seeing much to detest in the so-called manufactured Art work about us. Decorative Art has its physical and profitable aspects. Successfully applied, Art means wealth to a country, by her sons and daughters ennobling, through form and colour, and making valuable such materials as stone, clay, iron, or wood. Take a pound of common clay. In the hands of one man it may make a dish or pot worth 4*d.* or less, while in the hands of the trained Art workman—by the magic impress of mind (and the purer the mind the more exalted the product)—it becomes a valuable vase, worth £50, or even priceless. I think it is Owen Jones who remarks 'that it is indeed a wise policy that induces a country to draw to itself all the wealth it can without parting with more of its natural product than is absolutely necessary.' If for every pound of clay that a nation parts with, it can draw to itself that amount of gold which we value at £5 sterling, it is obviously better thus to part with but little material and secure wealth than it is to part with the material at a low rate, either in its native condition or worked into common clay vessels. By those references I support my strong desire for the encouragement of Art work in our midst."



You discover Mr. Stephen Adam's love of colour in his power and wealth of expression, and are reluctant to break in upon this, even to learn something of his association with a firm which has, indubitably, played its part in the Art Renaissance beyond the Border.

It is something of a quarter of a century, you are told, since Messrs. Adam and Small established the glass-staining and decorating business now conducted by Mr. Stephen Adam. Under Mr. Adam's management the house has become noted in Scotland, and has maintained its reputation in every branch of decoration by means of stained glass. Their premises comprise six flats, admirably equipped in all parts, and devoted to—(1) workshops for lead working; (2) the drawing and designing of cartoons and painting of patterns for approval, before proceeding to the final operations; (3) glass painting and staining workshops; (4) the kilns for firing the glass after the process of staining; (5) for stock of material; and (6) packing department. Mr. Stephen Adam has done the "James Baird" memorial in Alloway Church; the "Ainslie and Galbraith" windows in Old Greyfriars, Stirling; the "Spier's" memorial, Paisley Abbey; the "Ramsden" memorial, Tadcaster Parish Church, Yorkshire; "Houldsworth" memorial, Coltness Church; Colonel Buchanan's gift of windows to Coatbridge; the "Corry" memorial, Elmwood Church, Belfast; "Kidston" memorial, Cambuslang; "Smollett" memorial, Bonhill; "Clark" memorial, Paisley. The firm's work is characterised by breadth and mastery of detail, harmony of colouring, and *technique*. The head of the firm is a native of Midlothian, having been born at Bonnington, Edinburgh, in 1848. He has exhibited regularly at the Royal Academy, and other exhibitions, water-colour drawings of stained glass and decorations. Mr. Adam is a Member of the Council of the Ecclesiological Society, and is also on the Council of the Pen and Pencil Club, Glasgow.

But it is, in the main, with the subject he has made peculiarly his own that you are concerned, and you revert to this as one would to a favourite bit of Colour or a distinctive note of Style.

"In the production of a stained glass window," says he, "there are three distinct manners of treatment, viz., the Mosaic, the Mosaic-Enamel, and the Enamel. The first, as its name implies, means, to put it clearly, that work is wrought on the principle of a tiled floor, each colour used being distinct in itself within its lead fret, and consequently very many separate pieces of glass are employed, in carrying out even a simple design. The pigments used legitimately in this work are yellow stain and brown tracing line, as hereafter described.

"Next, the Mosaic-Enamel method simply means the application of enamel colour to surface, if coloured glass, for heightening its tone; or on white glass, for producing a colour such as the white surface left after etching out blue or ruby—may be made any colour, thus enabling the painter to show various colours on one piece of glass without employment of lead work, which examples also illustrate. In pure enamel glass any coloured effects are got on white sheet glass, precisely as they are got on slabs of porcelain. The pigments used are much the same—yellow stain, when employed, being placed on opposite side of glass from painting. Lead work can here be entirely dispensed with, the panes forming a window being connected with wood astragals.

"Then, before beginning construction of a window, a coloured design to scale is prepared. When approved of, a full-sized cartoon is drawn out, showing all details. From this cartoon a cloth tracing is made, showing lead lines only. This we term the cutting drawing. On it we carefully mark the colour or tint desired. Glass which can be seen through is laid on this, and with diamond cut to forms shown. Darker kinds.



French Glass, XVth Century.

of glass are cut to shape by means of paper moulds. When settled that proper glass is cut, and that colours so far harmonise, stainers now take up the work, and proceed to pencil in outlines of face or flower, as the



HEAD OF FEMALE MUMMY.

case may be, with brown pigment composed of oxide of iron. Outline completed, to impart texture or shadow the glass is stippled over with thin wash of same material used for outline, and, there being little binding medium in it, it easily is rubbed off where clear lights are desired.

"Suppose it necessary for carrying out of design to show, say, a white or yellow flower



on a ruby or blue ground, this is done by removing the surface of such glass by action of hydrofluoric acid. On the white surface now got we trace in the desired form, and, where wanted, stain it yellow. Were we, by applying enamel blue, here to increase effect, say, in a leaf, getting it green by staining yellow the opposite side, we should be practising the Mosaic-Enamel method. Then to give necessary finish and slight notions of effect, glass is fixed on an easel against the light for finishing touches, after which it is ready for kiln. During firing much anxiety is often experienced by the



EARLY CLASSIC COIN.

artist as to the result. From differences in composition of metal, colours that appeared similar before exposure to heat often change, and destroyed work is the consequence.

"The kiln used is constructed of iron and brickwork, in box portion of which flat iron shelves are supported on flanges, where glass is laid embedded in stucco to ensure its keeping flat when exposed to the requisite red heat, after which it is allowed to cool gradually—the longer it gets the better. This firing department requires much skill and attention. Glass now finished in staining, often with more than one firing, is laid down on cutting drawing. Lead worker then



MEDIÆVAL COIN.



XIXTH CENTURY GLASS.

selects his proper lead-bands, and proceeds to unite the whole. There are many different descriptions of lead; and were it properly considered how much the durability of the work depended on the thickness of flange, greater attention would be bestowed, especially where plain church glazing is treated. Joints of lead are then soldered, and the unity is complete. To increase solidity of panel, as also water-tight properties, work is rubbed over with preparation of white lead and oil. After this operation the glass should lie flat at least for one month before fixing it in its intended perpendicular position, otherwise cement is easily beaten out by exposure to weather. Copper wire ties are now added for tying to saddlebars, which, fixed firmly in stone, support window in position; and most important it is that those saddlebars should not be too far apart. Mediæval Architects increased their strength by running upright rods through them, similar to this example.



JUBILEE COIN.

"Just a few remarks now," Mr. Stephen Adam urges, "on things that pertain to contemporary Decoration—its utility, and its capabilities as regards our comfort and pleasure. If we of modern times honestly try to emulate the pure truthful feeling of past work, Decorative Art can yet become a noble, a Fine Art indeed; but if we continue to go on deluding people by graining natural wood, imitating choice marbles, making in the style of flowers brackets intended to emit gas, pottery-ware like wicker baskets, stained glass like painted canvas, we tell lies—decided material lies, that do not pass away, but stare us in the face, year after year in our homes—yes, and even in that abode where Truth should exist, our Church. If we continue thus we unconsciously degrade our Art and ourselves.

"The majority, I fear, labour under the impression that the secret desire of Art is to rob them of all comfort. Were Art to prosper, they say, farewell to fireproof, shapeless slippers, which bask like salamanders in the hottest blaze, farewell to shooting coats cut at elbows, patched dressing-gowns and hair-cloth sofas, nothing now but full-dress varnished boots, spider-legged chairs, velvet doormats, and scrapers of silver and gold. It is astonishing how many people think a thing cannot be comfortable if beautiful. But let our conceptions be true to Nature, not in slavish fashion, but as the plants grow in obedience to natural law, so should our design—close imitation and copying is not desirable. We find limits in the material we work on or with, but I say let us guide our work on her true principles until, as William Morris puts it, 'The web, the cup, or the knife look as lovely as the green field, the river bank, or the mountain flint.' Then, and then only, can we aspire to be leaders in Art, to gain as individuals that enviable glorious position which would exempt us from the necessity of pandering to the vulgar caprice (sometimes called Taste) of the uneducated in Art. Do those people tell their minister what he should preach? They dare not. Why then should the trained Architect and decorative Artist be trammelled and dictated to by an incompetent rabble or Committee?

"Primarily a living room says to the decorator—'Don't abuse my form or arrangement as the Architect has left me. Survey me well; my position, size, and amount of available daylight—all suggest my proper embellishment. If the Art plasterer has overdone my cornice and centre ceiling flower with cheap stock patterns, tone them down in soft neutral tints, or better still, remove them. Keep my sweetly and naturally-veined wood fittings as the joiner or cabinet-maker



The Three Kings, Le Mans, XIth Century.

has left them. I don't object to a little waxing or polishing whereby my natural beauties are made more evident, but don't smear me with unnatural paint, making me look expensive oak or satin wood, when you know I am only pitch-pine. Though cheap, don't make me a hypocrite. If my windows admit cold and cheerless light from north or east in judicious colouring of walls and ceiling you have a remedy.'

"There is great comfort in colour tastefully applied; a well-decorated house is already a half-furnished one. In a room of cold exposure use warm and ruddy colour, subdued reds, orange, and tawny gold. If your fireplace is in a dark corner, do not fear to use burnished copper brass in grate and fireirons, even gold Mosaics in your over-mantel. Stained glass, and the lovely curtains now easily had, also enrich and warm light; so, artistically, you separate yourself from the chilly outside world. Entrance halls, especially in our cold Scottish climate, should welcome you in this warm and cheerful manner. On the other hand when apartments face south or west, with light strong and aggressive, we should have cool, greenish-stained wood effects of blue and grey on wall. Dutch tiles of blue and white in your fireplace give cool and refreshing repose. In such rooms etchings and engravings are the fitting decorations for the wall, not heavy oil paintings. Ceilings as well as walls demand modified enrichment. If made flat keep it flat, don't festoon it. The Romans did that in their decline. In furniture see that you separate structural from mere decorative principles. Where possible, furniture should be made for its position. As to choice of carpets, think of the bloomy, soft feeling of Eastern productions, but go to Nature for advice, to the hill-side in spring, and the woods in autumn—in spring when the wild hyacinth, primrose, and modest gowan lie embedded in the velvety grass—in late autumn when the path is strewn with richer harmonies of amber, purple, and gold, a beauteous Mosaic. With all your love of colour, and the pleasure it gives, yet the tone of walls and wood should distinctly be subsidiary to the living creations that adorn your home. Your wife and children, and that great bouquet of eloquent flowers fresh from the country must be the primary, the daintiest, as it will be the truest embellishment you can have.

"Of late there has been a vexing tendency towards complete colour negation in decoration. Some seem to fancy that the weaker, more insipid, skim-milky the tints in a room the more cultured the Art. White painted wood everywhere, a timid, half-apologetic grey on wall, raw cabbage-green doors, and so on, may be cult, but is only an ephemeral fad. Tame and spiritless as this manner of decoration is, it is safe, very safe, and much to be preferred to extravagant use of stencilled patterns. Stencilling is sometimes helpful, but repetition and constant use are hurtful. The tempting facilities which stencils and certain classes of wall papers offer retard original design and individual effort, keeping us back from Nature and truth. We may as well expect to pluck growing grapes from a bed-post as to extract classic or Mediæval ornament from the average nineteenth century decorator. We have not the picturesque Mediæval streets, and the half-barbaric grandeur of those times, and why regret it? There is still abundance of incentive to original design." With these views we were in entire agreement.



Window in Chartres, XIIth Century.

THE CHURCH OF THE HOLY CROSS.

The Architecture of Waltham Abbey.

By Chas. Lynam, F.R.I.B.A.*

To attempt the architectural description of the Church of the Holy Cross at what is now known as Waltham Abbey (the name of the town itself being that of the great Monastic House once existing here), is not by any means the act of "flogging a dead horse," but rather that of venturing to stride a very dangerous steed for round this famous building there has for many years past raged fierce battles of dates and styles, and these particular subjects have for the most part engaged the keen wits of critics, not to the exclusion of, but to the overshadowing of the great merits of the structure itself to a considerable extent. On this occasion it is proposed, first of all, to endeavour to realise in some degree what passed through the mind of the designer of this famous building as he conceived its plan, its sectional parts, and the veiling of its walls, piers, and arches as he intended them to be viewed by his compeers and by all who should hereafter use them for the sacred purposes they were intended to facilitate, or for the future generations which might see them. But little did the designer think of the doubts and difficulties which his work would entail upon the learned historian, the professional Architect, and of some members of the British Archæological Association, all living at the end of the nineteenth century. He had in his mind only the permanence,



German Glass, XVIth Century.

grandeur, and utility of what he was about to erect. In the Churchyard to the south of the Church there stands a fine elm tree of enormous growth; its trunk measures no less than 21 ft. 8 in. in circumference, just below the start of the lowest branch; its foliage now spreads to a diameter of 63 ft., and it is said at one time it was double this width across. Its roots must date back for many centuries, and it presents, in its dimensions, form, and beauty, a great work of natural growth. Cut through its grand trunk a few feet from the ground and cast away all belonging to it, save its wide-spread roots and the stump of its trunk, and a fair representation of what now remains of Waltham Abbey would present itself to view.

What now stands as Waltham Abbey Church is but a limb of the great Conventual Establishment, which.

* Read at the Church, at a meeting of the Congress of the British Archæological Association, on September 28th, 1896.

in former years, covered the surrounding site. The Head, the Arms, the Body, are gone, and what is seen now, is, as it were, but the lower extremity of a growth, rooted at a time of one of England's changeful gasps, revived under a new and Foreign Rule, nurtured by the powers of the highest in the land through succeeding centuries, but at last reduced to an appalling ruin. Nay, the very inward spirit which had sustained its long life is now wiped out, that part only which appertained to the Church at large is left to us. This dismemberment of a great whole may well account for the disappointment which must happen to those who know anything of the history of Holy Cross Abbey and see it for the first time. But even in the fragment which remains there is, indeed, material for the exercise of keen wit, reasonings on long experiences, and admiration for the Art of true and genuine Architecture. "*Rude in its character*" is it said? Well, if in its great masses, its broad spaces, and its simplicity of treatment, it may, in the taste of an age 800 years its younger, appear of a masculine type, a study of its details will, be assured, reveal science in its construction, delicacies of proportion, refinements of design, and beauties of ornamentation which the most cultured of the lovers of Art must appreciate and admire. Turning to the general subject more in detail, let us in the first place dwell upon what remains to us of the Abbey and its surroundings, and first of the latter. For its situation, choice was made of the valley of the River Lea, and within some 200 yards from its banks, and on the eastern side, the buildings were placed.

ABBEYS WERE USUALLY SELF-CONTAINED

and the first essential in such an establishment was the means for grinding corn both for man and beast, and possibly some trade was added to the work for "The House" by using the mill for neighbouring farmers and others. As steam power—now at a ripe age—was not then amongst the many lights with which the Middle Ages were blest, the Monks most wisely availed themselves of that power which a bountiful Providence had provided in the weight and force of the running stream, which had its course along this fruitful valley. The bed of the River Lea being of a flat gradient, and the damming of the river probably difficult of execution, it was necessary, in order to obtain power on the mill wheel, to form a "Race" of considerable length, not less than about a mile. Such mill stream, or race, was formed, which brought the water power from the river to the mill, and this was placed between the Abbey Church and the Gateway. Then in times of flood it was necessary that a "Waste" should be formed from the "Mill Stream" before it reached the wheel. This also was carried out. Then, of course, after the water had served the mill it had to be conveyed again to the river, and this was done by what is known as the "Mill Tail." All these three watercourses still remain, namely: the "Mill Stream." taken from the river far up to the north; the "Waste," running from the stream to the tail; and, lastly, the "Tail," taking the spent water from the mill to the river again. The mill stream was further made use of for providing another essential of an Abbey establishment, namely, the means of breeding and cultivating fish, which formed so large a part of the diet of the Monks. The remains of the fish stews are still to be seen to the west of the mill stream in the field to the north-west of what is known as Harold's Bridge. This bridge would serve as the approach to the fish ponds from the Abbey precincts for other purposes. It is recorded that the mill was given by the first wife of Henry II. No part of the original mill building appears to remain, but the present mill occupies its site. The Abbey precincts had to be enclosed according to custom, and for this purpose a wall was built; probably the north and east walls ran along the lines of the present walls fencing the gardens which now occupy the Abbey precincts. On the west it may be that the boundary followed the mill stream and tail—a portion of an ancient wall still exists by the side of the mill stream between the Church and the Gateway—and on the south that rear line of Sun Street and Church Street marks the line of boundary. To this large enclosure the Abbey Gate placed on the mill stream, just north of the mill, gave entrance, and herein was contained the Parish Church, the Monks' Church with its Cloister and its surrounding buildings, the Abbot's dwelling, the Infirmary buildings and probably their Cloister, the gardens, and the burial places of both Monks and Parishioners. Happily, part of the Church is still remaining; that is, the portion used as the Parish Church, the Gateway, and a small vaulted building to the north of the Monks' Church. Excavations made by Mr. E. Littler have disclosed that east of the present Church the central Tower with its Transepts and Presbytery extended to a considerable length. To turn now to the present Church. It is necessary, in the first place, shortly to define the terms which are made use of in these remarks. When referring to the "Norman period," the years assigned to it are those first given by Rickman as from 1066 to 1190—and the other periods used by him are also followed here, being those usually, but not universally, adopted by those writing on the subject.

AS WE SEE IT NOW,

the Church consists on plan (speaking generally) of the Nave and Aisles of the Norman Church, the two eastern bays being used as a Chancel. A Chapel on the south side, its east end lining with the east end of the Nave, and a western Tower, together with a Vestry and its Offices, built about 1870. Beneath the south Chapel for its full size is a Crypt separately entered from the west end. The main entrance to the Church is by a doorway in the west wall of the Tower. There is also a large south doorway in the middle bay of the Aisle and a north doorway in the second bay from the west end, not now commonly used, as well as another doorway not often used at the west end of the south Aisle. At the east end of the north Aisle is also a small doorway entered from the land of the enclosed adjoining gardens. At the time of the erection of the Vestry a doorway was made in the wall of the north Aisle for access between the two, and an outer doorway formed from the Vicarage garden. The south Chapel is entered from the Churchyard *only*, by a doorway in its west wall near the angle buttress at its south-west corner, approached by a flight of steps rendered necessary by the floor level of the Chapel being raised above the floor of the Nave, so as to allow height for the Crypt below the Chapel. At the west end of the north Aisle there is a doorway next the Aisle to an internal circular stair, which now leads to the Ringing Room in the Tower and to the roofs. There is also a small doorway just east of the south entrance which is said to have led to a room over a south Porch, but there is doubt as to the accuracy of this suggestion. It is hardly necessary to mention the big folding doors near to the last-mentioned one, the purpose of which seems to be to aid the action of the heating apparatus which now (unfortunately from an architectural point of view) occupies the whole of a spacious, well-lighted, and vaulted Crypt.

THE DIMENSIONS OF THE PLAN

are as follows, namely:—Length from east to west within the walls, 108 ft.; the clear space of bays, 10 ft. 3 in.; width of Nave, 23 ft. 8 in.; diameter of circular piers, 4 ft. 7 in.; width of north Aisle, 9 ft. 7 in., of the south Aisle, 9 ft. 10 in., measured from wall to circular piers. The Tower is 15 ft. 11 in. east and west, and 15 ft. 5 in. north and south. The south Chapel, called the Lady Chapel, is 41 ft. 7 in. long and 21 ft. wide. In cross section the Nave is of three stages in height, having an Arcade between it and the Aisles, and a Triforium and Clerestory with low-pitched modern but substantial roof, covered with slates, and a flat ceiling inside. The Aisle has a sharp-pitched lean-to roof, covered with slates, and with a curved boarded ceiling to the inside. The height of the Nave from the floor to the flat ceiling is 52 ft., and of the Aisles, 30 ft. 7 in. from floor to wall-plate. The height from the floor to the springing of the arches of the Arcade is 15 ft. 8 in., and from the floor to the springing of the Triforium arches 29 ft. 4 in., and to the springing of the Clerestory arches 43 ft. The Nave walls are 4 ft. 6 in. thick, and the Aisle walls 3 ft. 6 in. The original lighting was by single-light windows in the Aisles and Clerestory, and probably a great central window in the west end, and a single-light west window to each Aisle. The circular windows in the Aisle walls lighted the Triforium storey. Many of the shallow external buttresses still remain to the Aisles. The bays of the main Arcade are not treated as a repeat of a single bay, but are grouped into pairs, with a main and a minor pier to each pair, and each main pier has a semi-shaft next the Nave running from floor to roof, but the corresponding shaft over the smaller piers starts at the level of the sill string to the Triforium storey. As at present seen the Triforium stage has only a single arch, the inner ring of which is wanting. There can be but little doubt that this wide opening was subdivided, it may be into two, three, or four smaller openings. The Clerestory stage has a wide, central opening, and a small one on each side of it. The walls in all probability carried a massive open-timbered roof, which would certainly form an appropriate crown to this magnificent Nave. The gaunt Aisles as now seen, it must be said, have lost their first proportions, for they were assuredly spanned by appropriate vaulting, or what means the shafting on the Aisle side of the Nave piers? And for what reason do the strings under the Aisle windows appear with gaps, and what else but vaulting shafts account for the present appearance of the Aisle walls, where the inner quoins of the vaulting shafts still appear? And what do the arched lines in the upper part of these walls mean, except as indicating the lines of former vaulting? Above all, who that has studied Norman Art does not shun the idea that the original designer of this building omitted the vaulting of these Aisles, both on the score of proportion and utility? Excepting that when these Aisles were encumbered with great Galleries, the real condition of things could not be seen, it would be hard to conceive that any practical man could for a moment think that they were

ORIGINALLY VOID OF VAULTING.

It will be seen that the two western piers of the Arcades are not only of differing shape, but also of much larger dimensions than the other piers, and on the exterior it is also to be seen that the Aisle walls have strengthening projections opposite to those piers, and the walls themselves are increased in thickness. The late Professor Freeman, it is said, first pointed out that these special provisions were designed in reference to two western Towers which originally occupied this position. Beyond the above-named points there are now no further indication that such Towers were actually executed, except that in the western bay no Clerestory was provided. On the other hand, there is nothing to suggest that Towers at these points did not form part of the original western façade. The first material change affecting the design of this Church was the removal of its west wall and the substitution of the present one. What the original of the Norman west front was, there seems to be no clue to; it was taken down and wholly rebuilt. But it must be safe to say that the western front of Rochester Cathedral (which we saw under the able guidance of the Rev. Mr. Livett on September 24th last) represents the probable characteristics of the original Waltham front. Or it may be that Waltham went beyond this Cathedral in dignity and elaboration, equalling the west front of the Priory Church of Tutbury, in Staffordshire, of which a drawing was shown, and to which, with other drawings of this Church, further allusion will be made when the question of dates is reached. It may be asked: What reason could there be for pulling down such a fine front so completely in harmony with the other parts of the Church? Answer to this may be made: First, that for aught we know, structural difficulties may have arisen, and then the motives of men living under circumstances now remote, are not easy to be discerned. And again, then, as now, *fashion* had its changes, architectural styles succeeded one another, and in those days, at least, the past fashions were scarcely ever followed by a succeeding age, and above all *ambition* was deeply seated in the hearts of men then, as now, and out of such ambition and change of views then, as now, came novel performances, it may be, to the advantage or disadvantage of succeeding ages. In the case of the

RE-BUILDING OF THIS FRONT,

if a *great* work was taken down *another* was substituted, if out of harmony with the building at large yet in itself of exceeding beauty and boldness. Of this the great western doorway, with its adjacent Arcadings, the slight remains of the windows above the doorway, and the circular windows and pinnacles and buttresses

to the Aisles sufficiently testify. Recent excavations seem to disclose a part of the foundation of the original line of the west front. The Triforium floor and the gutters of the roofs were in all probability approached by stairs in this west wall, one on each side, with a passage running across the west end connecting them. An approximation to this arrangement is still in existence. The other principal alterations in the Church consist of the pointed arch work in the Clerestories; the attempt to abandon the Triforium storey and to make the Church of only two stages in height, as seen in the second bay from the west end; to provide for the erection of the Lady Chapel on the south side; and the insertion in the north Aisle of a three-light window early in the fourteenth century, and of a four-light window late in the fifteenth century. Everyone (who cares for such things) must thankfully rejoice that the bad taste which started to re-model the Church as seen at the west end, so as to destroy its Norman character, was frustrated in its attempt, either by abhorrence of its own performances or from the fear that their Church would come to the ground ere they had completed the hideous change. To this same sad taste the removal of the vaulting of the Aisles is probably attributable. The remains of ancient fittings are extremely small, but there is a screen across the north Aisle at the second pier from the east, of plain but excellent design, of early fourteenth century date. The monumental remains in the Church have been exhaustively dealt with by Mr. Frederick Chancellor in his great work on this branch of ecclesiology in relation to the county of Essex. Of the work done within recent years only a few words will be expected. The name of the late Mr. William Burges, who was engaged as Architect, is at least a guarantee that true architectural design prevails in it. The question of the style of treatment was perhaps more fitly his prerogative than that of anyone else. He chose not to attempt to work in harmony with the Norman designer's detail, but to trust to his own knowledge and skill in the style he most favoured, namely, French Gothic, of the thirteenth century. Criticism now is hardly admissible, but this, at least it may be permitted to say, namely, that if at first a discordance strikes the eye in relation to the east end, further reflection and study bring to light the fact, that, though in another style, Mr. Burges's additions bear the marks of his own genius in the solidity, breadth, and artistic treatment of his work. This may be specially noticed in his large arch nearly under the ancient western arch of the Nave. Before leaving notice of this fine interior, dwell for a moment or two on its superlative fitness of design, noting, first of all, the proportion of the relation of solids to voids, then the exquisite relation of height to width and length, also the proportion of the several stages in height, and, last of all, the effectiveness of its decorative details. Then, in the mind's eye, lift the flat ceiling—not to any great height of roof—but enough to properly harmonise with the walls, and to put into it sufficient of the mystery of dimness which its great total height must have secured, and say whether in the Norman Church of Holy Cross at Waltham, when its eastern length formed part of it, there was not a building here whose architectural effect could hardly be surpassed? "*Rude* in its design," does anyone think? Well, to the flourishing Queen-Anneish taste of this day it may be so, but having regard to the great architectural productions of the wide world, surely not so. This brings us to the very important addition known as

The Ladye Chapel,

on the south side of the Church. This is a building of fourteenth century design of the dimensions before given, and is of two pairs of bays, having on the south side two great end buttresses and one central one, with two lesser ones between the centre and the ends. The first point which demands attention is that the east end is without any window, but its wall was decorated by a painting in colours representing what is known as "The Doom." Its treatment has been fairly made out, and there are particulars of it in the Vestry. This east wall of the Chapel was the west wall of the south Transept, and its face next the Transept is still preserved with its windows, panels, and strings. The determination to glaze the south and west sides to the utmost is fully expressed by the four three-light windows in the flank and that of six lights in the Gable. The motive in providing this excess of window surface was probably to compensate, not only for the blocking up (occasioned by the erection of this Chapel) of the south Transept windows, but also of three windows in the south Aisle, thereby involving that three bays of the east end of the Church on this side should be lighted only by the Chapel windows through the arched opening between it and the south Aisle. It is probable also that this reduction in the lighting of this part of the Church gave rise to the insertion of the two large windows on the north side. The large arch on the north side of the Chapel was formed by breaking through the south Aisle wall, and its treatment is of the plainest character. There is no direct connection between this Chapel and the Church, and it would seem to have been intended for separate services under parochial and not monastic control. It was furnished, of course, with its own Altar, Piscina, and Sedilia. The windows and doorway in this Chapel are of more elaborate design than any other part of the Church, and the treatment of the large west window, with its second face of tracery on the internal line of the wall, exhibits the artistic resources of the mediæval designer in a remarkable manner. Having the southern windows and having determined to employ a large square-headed window in the Gable, how could this have been of better design? The Crypt beneath this Chapel with its groined roof, characteristic windows, and doorway was worthy of the superstructure and was probably a repository for famous relics, but is now put to a purely utilitarian use and is not easy of detailed examination. The western Tower only now remains for our notice. If Mr. Burges's opinion be correct (and there is no reason to doubt it), that the erection of this Tower saved the Church from falling, we may indeed bless the unintentional service which its builders in the seventeenth century rendered, not only to Waltham Abbey, but to the country at large, by the preservation of this historic Church. The main features of the Tower, its doorway, west window, and the materials of its walls, have mostly been quarried, as it were, from the ruins of the eastern portion of the Abbey Church. It still serves the useful purpose of accommodating a ring of eight bells, cast by Bryan, of Hertford, in 1806, but it must be confessed that it forms a very disappointing feature on a first view of the Church from its main approach, and the archæologist yearns for the presence of the great front which adorned the west end of the Norman Church, or even for that which the ambition or other motive of the early fourteenth century improvers erected in its stead. This general view of our subject could hardly close without a word or two on the

Exterior of the Building.

The east end is to the archæologist perhaps the most interesting part, as it discloses the west arch of the great central Tower, with the abuttals of its north and south sides, and the wall within the west arch partitioning the parish from the monastic Church with two doorways for communication. Also the east arch to the south Aisle, and the fact that there was not a corresponding arch on the north side, together with the internal faces of the Transepts, and the abuttal of the south wall of the south, Transept. From this point also, by the aid of Mr. Littler's plan, the extent of the monastic part of the Church, and of the domestic buildings, can be best appreciated, and the approach to the only remaining fragment on this side can be made, and the Abbey gate and "Harold's bridge" visited. Both the north and south flanks follow on the lines of what is seen of them in the interior. The north doorway is simple in its design, but that on the south side is of fine dimensions and of elaborate treatment. We have now reviewed as briefly as the subject would allow, and only in a general way, what is known as Waltham Abbey Church, and it may well be asked (notwithstanding the loss of so much) whether the abiding feeling which should remain with us should not be a sense of gratitude that this town possesses so much of the noble architecture of the Norman builders, and that at a difficult crisis the talent of the late Mr. Burges was employed in the preservation of the ancient remains and in its restoration for the decency of Divine worship according to current ideas. The almost total absence of perpendicular work may also be gratifying to many of us. Finally, and let it be said *briefly*, we come to the vexed question *of dates;* and, first of all, let us try distinctly to understand what are the actual differences in opinion

With Respect to Dates.

All who have written on the subject are agreed that the remaining early Church is of *Norman design.* Mr. Arthur Ashpitel, a learned member of the British Archæological Association, in an early volume of its "Transactions," expresses a sort of wish that though of Norman design it should have been built by Harold, our last Saxon monarch. The late Professor Freeman writes in the "Transactions of the Essex Archæological Society":—"A large portion of the *original interior* remains untouched; an interior deserving attentive study as one of the noblest specimens of Northern *Romanesque.*" And again: "Is the existing building really the work of Harold?" (1041–1066). And further: "After most carefully weighing all the evidence, I have come, *though not without doubt and hesitation,* to the conclusion that the balance of evidence inclines to the opinion that the Romanesque portions of the present Church are really portions of the original Church built by King Harold. . . . The consecration of Harold's Church is fixed at the latest at 1060. . . . *Harold's erection might have been replaced by another.* . . . The time when we most naturally look for such a change would be when Henry II. (1177) entirely remodelled the foundation, substituting *Monks* for *Secular Canons* established by Harold. . . . But if the Architecture looks too much advanced for 1066, it does not look advanced enough for 1177. . . . By whomsoever built, Waltham Abbey is undoubtedly a Norman building." This, in Mr. Freeman's nomenclature, does not necessarily mean a post-Conquest building. In 1861 the late Mr. Burges published a statement of the dates and other matters relating to the Church in which the Nave is included, as of the time of Harold. At a later date Mr. Edward H. Buckler published a book entitled "Historical and Architectural Notes on Waltham Abbey," in which he expresses his opinion as follows:—"The progress of our knowledge of early Norman Architecture has been so considerable of late years, as to justify our belief that there is *no sign* of any very early work at Waltham Abbey." Again: "We have evidence that the work has been built *from the east,* westwards, thus following the system of which there are so goodly a number of examples." As late as the year 1890, Mr. J. Arthur Reeve read a paper at a meeting of St. Paul's Ecclesiological Society in the Abbey, which contains the following expressions of opinion:—"The theory which, as I believe, accounts for all the phenomena which we find here is simply this: That from the west wall up to and including the second pier from the east end on both sides of the Nave, we have *Harold's work*—perfect on the south side and perfect on the north side up to the string course below the Clerestory: that the two eastern bays, together with the western Arch of the original Central Tower and the remains of the south Transept, were erected by Henry I. during the lifetime of his first wife, and that the Clerestory in the western bays on the north side of the Church was probably reconstructed by him after his second marriage." These are the deliberate opinions

Of Archæologists and Architects

who have given very diligent study to the question of dates in this building. *Think* what presumption it would be for a stranger to come here and after a comparatively cursory view of the subject to pronounce on the conclusions above recited. That is not what was undertaken on this occasion. But Mr. Freeman advises comparison of one building with another, and many examples might have been brought forward in this respect, but it happens that some details of the Priory Church of Tutbury, in Staffordshire, are at hand and are here produced. This Church was begun, as Sir Oswald Mosley relates, in 1080, and the founder, Henry de Ferrers, was interred in it before 1090. The Charter states that the foundation was (amongst other good intentions) "for the souls of King William and Queen Matilda." It will be seen that this Church is not unlike, in its general expression, the Abbey Church now under discussion, and that its details favour an earlier character than

Waltham Holy Cross. Then the Norman part of Rochester Cathedral is fresh in the memory of those present, and above all, the early part of St. Alban's Cathedral is well within our recollection. It is hardly within the scope of this paper to criticise the reasons for the conclusions others have come to as to those dates, but it may well be asked *that the effect on the minds* of those who hold to the Saxon theory, by reason of the belief that Harold built a Church here, should be borne in mind, and also that Mr. Freeman himself emphatically says that the example is unique. What in my humble view is significant, is the fact that not a single mark of Saxon design or workmanship as commonly understood is present, except, possibly, in the lower part of the eastern face of the south Transept west wall, and the external rubble facings in the south Aisle. But on the contrary, the design and the workmanship and the ornamentation are all essentially Norman, and in all probability Norman oversight controlled the work.

A FAMOUS IRISH POTTERY.

VIEWED in the light of its possibilities, the pottery output in Ireland, whether in actual quantity or artistic work, is lamentably inadequate. It is not yet 40 years since the Belleek Pottery Factory was started in the pretty village on the north-west border of Fermanagh. To a London Architect, Mr. Armstrong, belongs the credit of at least the artistic fame of the Belleek products. He was a man of wide culture and a high artistic ideal. "He resolved that Belleek should be known and famed for the excellence of its products, in material, form, and decoration. At any cost a high standard should be maintained; and nothing vulgar, nothing inferior, should be allowed to leave the works." To this end he employed a staff of the best skilled workers, to whom he paid liberal wages, chief among them being a designer, a modeller, and an engraver. If an expert in any branch could be secured, Mr. Armstrong engaged him for a time, regardless of expense, and thus kept himself acquainted with every new process or method that might be introduced. Two distinct branches of manufacture were carried on at Belleek—parian or "ivory" china and common delft. The former was the speciality of the factory. To-day this "egg-shell parian," with its peculiar lustre and iridescent sheen, is known and appreciated everywhere. In the early years of the factory there was an immense

VARIETY OF CHASTE DESIGNS

in artistic tea and dessert services, vases, ornaments, and even statuettes from the antique as well as from original designs. In 1884 the factory was offered for sale as a going concern. A limited company was formed with commendable enterprise in the locality, and the works were purchased for the sum of £5,500. Under the new regime, a policy of unwise retrenchment was, we are informed, begun, with the result that, "as soon as young workers give proof of ability, and reach that stage when their services are really valuable, they usually emigrate; and, with the exception of a few superior workmen, who are bound there by circumstances, Belleek is left to depend on less capable hands, made up largely of apprentices. The natural result of this is a lowering of the standard of production, both in quantity and quality. In further pursuance of this policy, the company dispensed with both

DECORATIVE DESIGNER AND ENGRAVER.

Were it not for a clever modeller on the works, who is constantly bringing out something new, Art would be poorly provided for. Decoration does not show progress—merely some slight, plain gilding and flat tinting on the finer goods, and the use of old, worn-out prints on the common delft." The Parian product of the factory continues good. New shapes are being added from time to time, many of which, in beauty of design, compare favourably with those of any other period. In several places throughout the country clays suitable for pottery are to be found, and the industry should certainly be extended, and if it should strike out on two special lines—superior earthenware, and fine white china, for which there is a large sale in this country—it would not clash very seriously with the interests of Belleek.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
October 7th, 1896.

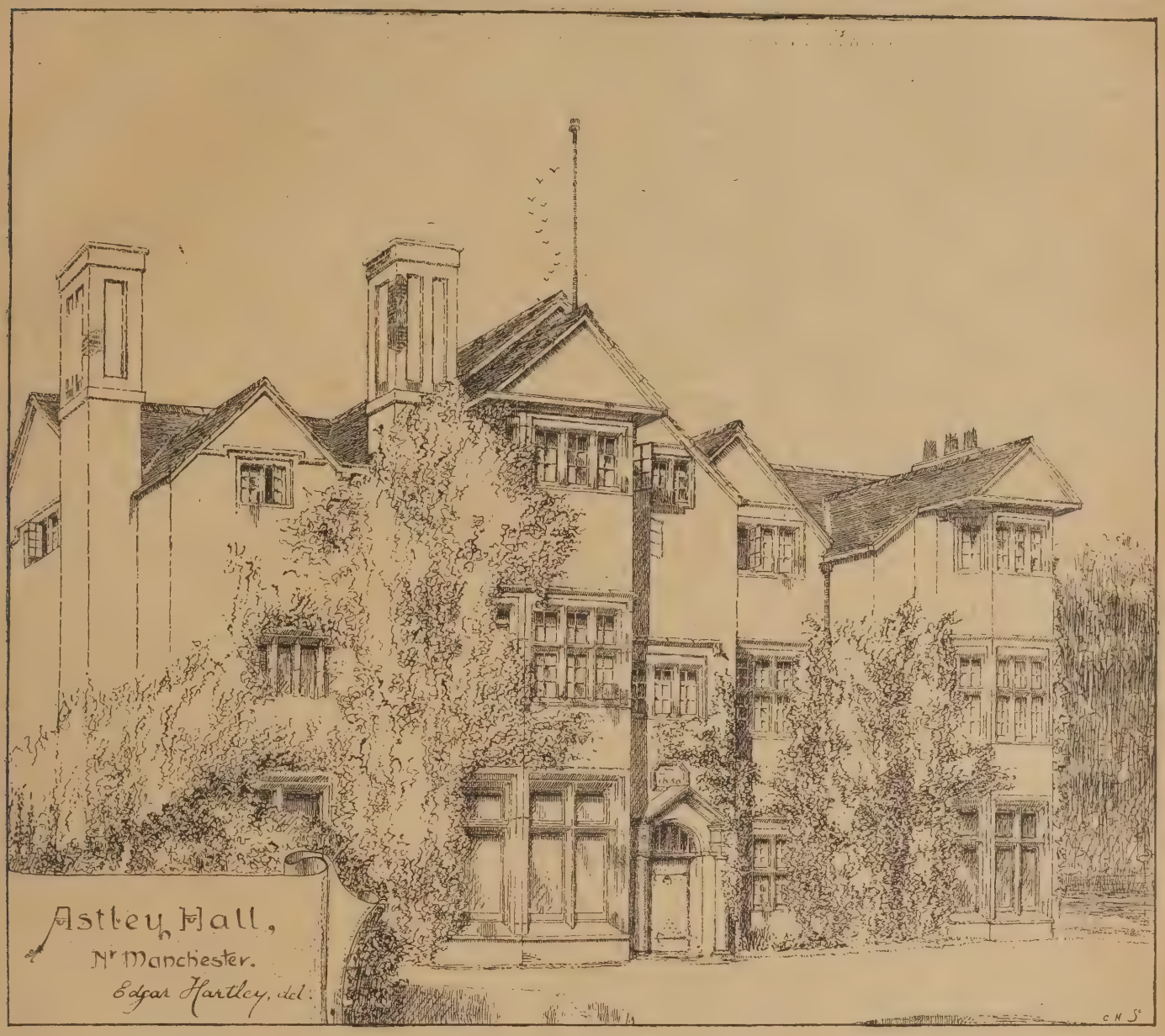
"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

AN important restoration is about to be made on an old ecclesiastical edifice, the Church of the Greyfriars, Elgin, by the Marquis of Bute, and the ruin was recently inspected by Mr. Kinross, Architect, on behalf of the Marquis, with the view of preparing suitable plans. A few years ago, Major Leslie, the proprietor, sold Greyfriars House and grounds to the nuns at Elgin, and so the old Church, after three centuries, came back to the Roman Catholics. At present the ruin consists simply of two roofless walls and gables, and in that condition it has probably remained for centuries. The building is believed to have been erected by Bishop John Innes in 1409, and was the centre of a monastery. The monks were of the order of Franciscans called Observantines, and were introduced into Scotland by King James I. from Cologne, and had nine convents in Scotland, Elgin being the eighth in the list. This monastery is stated to have drawn certain revenues out of the land of Kirdels, Over and Nether Manbeen, and the barony of Aberchirder. The buildings at the Reformation fell to the Crown, but afterwards passed into private hands, and all that remains now are the ruins of the Church. This Church appears to have been long used as a place of meeting for criminal courts.

DURING the middle ages, drinking and other water for London had to be fetched from wells and rivers which were by no means too clean. In the reign of Henry III. a new source of supply, to meet the increasing need, was tapped in the fields of Bayswater. One Gilbert Sanfort, in 1236, granted a fresh spring, near the modern Craven Hill, to the citizens of London. Leaden pipes were cast in Holland, and were imported here to be laid underground from the Bayswater spring to Cheapside. A conduit house was erected by Sanfort at Craven Hill, and remained, in an altered and rebuilt form, till 1820. At various places between Bayswater and the City there were wells and conduits. A conduit was erected in Cheapside opposite Honey Lane, and this remained standing until the latter part of the seventeenth century. The Bayswater conduit bore the City arms and the date 1632, and it is believed that the bed of the stream thence to the City is in reality Corporation property. This watercourse was formerly noted by stones above ground, and in the burying ground of St. George's, Hanover Square, there used to be a brick well and several stones marked with the City arms, and the date 1773. Opposite 254, Oxford Street there was once a well having the City arms and the date 1772. One of the conduits which has been preserved formerly stood at the corner of South Molton Street, Oxford Street. It bears the City arms and the date 1627. Beneath the shield is a hole, probably once circular, but now much broken away; and this aperture, together with the stonework beneath it, bears evidence of the action of the water which once flowed therefrom. There were at first nine distinct conduits supplied by the Bayswater spring, and as time went on the number, including the smaller cocks or bosses, was increased to 20. These were under the jurisdiction of the Lord Mayor and Aldermen, who made an annual inspection of them, about September 18th. The visitation was carried out on horseback, and was completed at the Craven Hill Conduit House, where a banquet, followed by a hare hunt, brought the ceremony to a close. The Serpentine now receives part of this City spring, and the rest flows into the sewers.

IN consequence of the amalgamation of the parishes of St. Michael, Wood Street, and St. Mary Staining with that of St. Alban, Wood Street, the Church of St. Michael is to be pulled down, and the site, materials, furniture, and fittings are to be sold by the Charity Commissioners. The Church of St. Michael, Wood Street, occupies a site at the corner of Gresham Street and Wood Street, the south wall of the Church being situated in Huggin Lane. The body of the Church was destroyed in the Great Fire, but the Tower was not entirely burnt down. The Church was rebuilt by Wren in 1675, and the Tower was repaired. The present building is a plain edifice without Aisles, measuring 63 ft. in length by 42 ft. in breadth, and was erected at a cost of less than £2,600. There are three large windows in the east, and four in the south wall, but the north wall contains no apertures. The walls are panelled to the height of about 8 ft., and the handsome oak altar-piece is surmounted by the Royal arms fixed at the centre of a broken pediment. The old Pulpit is also a fine example of carved oak. The Organ, which was originally in the western Gallery, was removed in 1888 to the body of the Church, and now occupies a position in the north-west corner. The old high pews were also removed at the same time, and replaced by open benches. The Font is located in the south corner, and is noticeable for its fine carved wooden cover. The east front of the Church contains four Ionic pilasters supporting a pediment, with three circular-headed windows between the columns. The Tower consists of three storeys, crowned with a parapet, from which rises a lead-covered Spire, the height of the vane surmounting the Spire being 130 ft. from the pavement. It is also stated that a portion of the wall of the old Church was built into the west wall of the present Church.

A BRIEF outline of the History of the Royal Exchange may be gathered from the foundation stone of the present building. From this inscription one learns that Sir Thomas Gresham, Knight, erected at his own charge a building and colonnade, adding thereto, for the relief of indigence and for the advance of literature and science, an almshouse and a college of lecturers, Queen Elizabeth performing the opening ceremony in person. Having been reduced to ashes, together with almost the entire City, by a widely-spreading conflagration, they were rebuilt in a more splendid form by the City of London and the ancient Company of Mercers, King Charles II. commencing the building on October 23rd, 1667, and when they had been again destroyed by fire on January 10th, 1838, the same bodies undertaking the work, determined to restore them at their own cost, on an enlarged and more ornamental plan, Parliament providing the means of extending the site and of widening the approaches and crooked streets in every direction. His Royal Highness Prince Albert laid the first stone on January 17th, 1842, the Architect being William Tite, F.R.S. With regard to the statues which adorned these Royal Exchanges, it is noteworthy that the figure of Sir Thomas Gresham escaped the first fire, although, according to one authority, it succumbed to the second. In the second building stood statues of the Kings and Queens of England from Edward the Confessor to Charles II., and some of these survived the second fire in 1838, amongst them being those of Queen Elizabeth, Charles II., Queen Anne, George II., and George III. Busts of the Virgin Queen, and figures of Europe, Asia, Africa, and America also escaped, together with the copper-gilt weather-vane. Of these remnants from the seventeenth century Exchange the statue of Charles II. is in the present building, and the old weather-vane, in the form of Gresham's crest, the Grasshopper, still indicates which way the wind blows on 'Change. The head of the stone statue of Edward VI. has also survived, being now in the Guildhall Collection, to which it was presented by Mr. John Kelsey, a member of the Corporation, 1863–5. Most of the statues in the 1667 Exchange were carved by Cibber, hence their interest.



The Committee of the Swansea Centre of the University Extension Scheme has arranged for a course of lectures on English Painters from Mr. J. E. Phythian, of Manchester, and inasmuch as the continuation of University Extension in Swansea depends upon the support given to the lectures, it is to be hoped that they will be well attended. This course will be delivered on Thursday afternoons in the schoolroom of the Presbyterian Church, St. Helen's Road, and commenced on Thursday. Mr. Phythian, who is a competent Art critic, will survey the history of the English School of Painting, noted for its individuals, its varied and isolated methods, rather than for the single speciality that constitutes the foreign "schools." The first lecture was on Sir Joshua Reynolds, who gave to portraiture the charm of character. The second lecture will be on J. M. W. Turner, in whose landscapes Nature and Art were reconciled and blended into harmony. The third lecture will be on Dante Gabriel Rossetti, and the fourth on Holman Hunt. In these reference to pre-Raphaelitism, the most interesting Art movement of the century, is inevitable: to that interesting trio Rossetti, Hunt, and Millais, who, with Ruskin as literary champion, constituted the fancy the intellect, and the muscle of a much-abused and unfortunate, if well-meaning development. From pre-Raphaelitism, the lecturer goes to Sir E. Burne-Jones, the compromiser of realism and idealism, and eventually to G F. Watts, one of the greatest poet-painters of the century, striving, not without success, to teach great truths and suggest great thoughts by the silent eloquence of the crayon and the brush. From Reynolds to Watts: a range of Art history in which prominent individuals and unique methods are involved; in which English painting acquired a vigour and a moral force almost equal to those of the Old Masters. Mr. Phythian is also delivering a course of evening lectures, on "Architecture in relation to English History" at the Royal Institution.

There may be two opinions on the merits of tenement dwellings, but in the meantime it is clear that the poor unhoused by city improvements must be housed in some way, and this, says the Manchester Guardian, is precisely what the Manchester Corporation has not done in Hulme. Sufficient testimony to the distress that has been caused by the unhousing was offered at the recent meeting. The whole trouble is due to the vacillations of the Sanitary Committee's policy. First came the Oldham Road clearance and the erection of a huge tenement block. This was not ideal, but was at least better than nothing. Then came the Chester Street clearance, and an experiment in cottage dwellings—in Miles Platting. And now, after the Pott Street clearance, we have the lodging-house scheme. It is not that the Corporation has done nothing, but that it has tried every scheme in the wrong fashion. It seems to have been made out that the Corporation has not complied with the conditions laid down by the Local Government Board, which is omnipotent in such matters. Not only has the Corporation, contrary to those conditions, proceeded to a second demolition before providing for those dispossessed by the prior clearance, but it has not yet proposed a satisfactory scheme of rehousing. A lodging-house is excellent, but it cannot be said to provide for the accommodation of the dispossessed families.

The fine old historic ruins of the Rock of Dunamace were the subject of a lecture recently given by the Rev. W. Mercer. The position of the moat, though partially filled up, can easily be traced, as can also the place of the drawbridge. The external walls still remain in great part a wonderful display of the engineering ability of the Normans, and their art of erecting solid masonry, which was so peculiar to them. Immense blocks of masonry are strewed over the rock, of enormous thickness, composed of small stones, and bonded together by a mortar which now equals the stone itself, for tenacity and hardness. The selection of the site upon which the fortress was erected could scarcely have been better, as it was practically unassailable from any point before the use of cannon. It is built on an isolated rock which rises precipitously in the midst of an extensive plain, except on one side where the Grange Hills confront it, from which position Cromwell's General played upon the fortress with deadly effect. The inner portion of the walls is more complete than the external, and the ruins of the "keep" can still be seen. The lecturer showed how some parts of the building had been repaired within the last century, and traced the history of the old ruins from the earliest period, but he considered the remaining structure was rebuilt about the year 1216. He also dwelt particularly upon the period immediately preceding the rebellion of 1641, when the fortress was held by the celebrated Owen Roe O'Neill. In 1650 it was dismantled by Colonel Hewson and Colonel Reynolds, which effectually prevented it from being used afterwards as a fortification.

IT is said that the laying out of Leeds City Square is going to prove a rather more costly undertaking than was originally anticipated, and at the next meeting of the Council the Corporate Property Committee will have to request a further grant of money for the purpose. The Committee recently held a special meeting in order to examine and make recommendations concerning the 40 tenders that had been received for carrying out the work. At the July meeting of the City Council, a resolution was passed adopting the scheme submitted by Alderman Harding, and authorising the Committee to at once make arrangements for the work to be done, with the exception of the central figure and bronze ornaments on the balustrade. The resolution also gave power to the Committee to expend £5,000 upon this very desirable improvement. The lapse of two months sufficed to convince the Committee that £5,000 would not be sufficient, and accordingly they applied to the Council a few weeks ago for an extra £1,000, which was readily granted. But still more will be required, for the tenders which the Committee has resolved to recommend the Council to accept amount to £7,084 17*s.*, or £1,084 more than they have been authorised to spend.

AT the first University Extension Lecture in Ipswich, on Thursday, in the Lecture Hall, Mr. E. J. Garwood, of Trinity College, Cambridge, chose as his subject "The story of our continents and oceans, told by the valleys, rivers, and rocks." Having remarked that in his first lectures he would deal with subaërial denudation, Mr. Garwood explained that denudation was the disintegration of the crust and the removal of the fragments to levels under the influence of various denuding agents assisted by gravity. The denuding agents could be divided into two classes—subaërial and marine. The subaërial agents included those which acted in wet and dry weather, and while lightning, wind, plants, and animals acted in dry weather, the atmosphere, rain, moving and running waters, and partly animals and plants acted as agents when the weather was wet. In illustrating his remarks, Mr. Garwood depicted on a screen the ruins of an old building, and pointed out that the stones, which were originally square, had their edges rounded by the action of some agent. The action on old buildings was caused by the atmosphere, which contained certain gases, and they acted chemically in corroding the stones. The wet weather agents acted both chemically and mechanically, but the dry ones only mechanically. In the neighbourhood of towns the air was charged with sulphuric acid, and that helped enormously the corrosion of buildings. As to animals as denuding agents, he said it had been estimated that an earth-worm lifted up 10 tons of mineral in an acre of ground in one year. Rain also acted as a chemical and mechanical agent, and its chemical action was seen in a marked degree on rocks, while in limestone districts pyramids and obelisks were formed by its action. Rain acted in two ways—chemically by dissolving soluble salts, and mechanically by washing away loose material and transforming it into rocks.

FROM Paris we learn that the Hotel de Ville has obtained £48,000 for the reception of the Czar. A temporary stairs has been run up to enable the Imperial visitors to take in at a glance the internal decorations of the grand galleries. The horseshoe staircase is magnificent, but it does not please the city Architect. It was intended to have a silk vellum over the Avenue Victoria to shelter their Majesties from the eyes of sightseers in the upper stories, but it was found that this would interfere with the view of the hotel.

IT is, says a correspondent, interesting to find that at last some attempt is being made by the Admiralty to improve the plant of Portsmouth Dockyard, on which money is spent in a far too grudging spirit. A machine for bending nickel plates of three or four inches in thickness has recently been erected and is working admirably, but when the foundations of the machine cease to be a swimming bath, and when other machinery and a roof have been added, we may reasonably look for some progress. Some few years ago the Admiralty came to the conclusion that several more powerful cranes were required, and they granted them in a fairly generous spirit, but stopped exactly at the point where they should have continued the movement. At the present moment the yard possesses only one set of sheer legs where weights of from 80 to 100 tons can be lifted, and these are placed at the uttermost limits of the yard. These sheer legs have become venerable by their antiquity, awkward by being in the wrong place, and a source of anxiety, because, in case of accident, the whole work of the yard may be dislocated.

A VERY neat pamphlet entitled "A Cathedral for Belfast: A Statement and Appeal" has been issued by the Building Committee, illustrated with views of the proposed Cathedral. It gives a very concise history of the movement, and states that:—"Owing to its recent growth, Belfast has little to boast of in the way of churches or ecclesiastical buildings; these, though very numerous, are, with a few exceptions, poor and unpretentious; especially is this the case with regard to those belonging to the Church of Ireland, some of which are of a very humble and even temporary character. There is no Church in Belfast in a central position capable of accommodating large congregations. The scheme was first suggested in 1895 and was subsequently approved, and a Committee appointed at a public meeting to take steps for raising funds to meet the preliminary expenses connected with the project, and to select an Architect, or Architects, who would report upon the work and supply designs. The Committee, after much deliberation and several meetings, nominated Mr. Drew, of Dublin, and Mr. Lynn, of Belfast, joint Architects to the proposed Cathedral. Mr. Lynn subsequently, however, while expressing his willingness to continue to advise generally in the matter, elected to leave the more responsible duty of preparing the design for the building in the hands of Mr. Drew; having done this, he particularly requested, as a point of professional etiquette, that Mr. Drew's name alone should appear in connection with the drawings and report; hence the omission of Mr. Lynn's name. The Architect's suggestions, if carried out, will give, as the first instalment of the work, the Nave with north and south Aisles; this, with the lower portion of the central Tower, which can be roofed in so as to form a temporary Chancel or Choir, will serve as a commodious Parish Church, and also supply to a great extent the more elaborate wants of a Cathedral. At a future time, when funds are available, the Transepts, Chancel, and other requisite buildings can be added; all which, it is to be hoped, will be in accordance with the general lines indicated on the plan. Accommodation will thus be provided for a congregation of 2,500, for complete Cathedral services, and a full Cathedral establishment. Meanwhile, by completing the first part of the work as proposed, the people of the diocese and the citizens of Belfast will have the use of a building, erected entirely on Church property, as large as the Ulster Hall, and of a character very similar to the Nave and side Aisles of St. Patrick's, Dublin, or of one of the smaller English Cathedrals. The cost of this instalment Mr. Drew estimates at from £25,000 to £30,000, exclusive of foundations."

ACCORDING to a report which a committee of experts in the United States has presented to the National Association of Fire Engineers, the overhead single trolley system of working street tramways is a menace to the water and gas systems in consequence of the decomposition caused by the action of the electricity. If electrical energy is to be used for working tramways in populous places, where gas and water pipes are laid under the streets, the committee thinks the only way to prevent the rapid destruction of the pipes is to discontinue the use of the rail and ground as part of the electric circuit, and substitute an electric metallic current with no ground connection.

THE Society of Scottish Artists, which has been driven out of public view for a season or two by adverse circumstances—chiefly by the difficulty of procuring a suitable place of exhibition at a suitable time—now reappears, but with somewhat diminished lustre. The galleries on the Mound, where it made so successful a beginning four years ago, being no longer available, the Society has had to content itself with the limited accommodation afforded by the two rooms of the French Gallery in Hanover Street. The chief aim of the Society is to stimulate the younger artists to produce original and important works by giving them better opportunities of submitting their pictures to the public than those afforded by the exhibitions of the Royal Scottish Academy. The present exhibition enables the Society to realise their aims to a very partial extent. The limited wall space has made it necessary to confine the exhibits, with a few exceptions, to those of the members of the Society, to limit the number of these, and to exclude all large canvases. In spite of these conditions, the exhibition, which includes about 250 works of Art in oil, water-colour, and sculpture, is both interesting and creditable, and it serves at least the useful purpose of keeping the Society before the public as an active organisation.

IN McKean County, Pennsylvania, there exists a number of wood alcohol factories, the spirit being produced by dry distillation simply. The ordinary factory is built with from 6 to 14 pairs of cast-iron or steel retorts of from 1 to 1½ cords' capacity to the pair, and the wood, after being hermetically sealed in the retort, is charred by a baking process, the fumes of which are condensed and precipitated by lime and other chemicals. This fluid is drawn off and redistilled, and shipped to refiners for the final treatment, after which it is ready for the market. Only hard wood of the best quality is supposed to be used—the better the quality of the wood the purer the quality of the liquor. The wood—beech, birch, and maple—yields on an average some 6 gallons to the cord, a good deal depending on the age and quality of the wood, and the best results are obtained when the retorts are well packed.

MR. F. J. LESLIE, F.R.G.S., President of the Liverpool Philomathic Society, in delivering an address on "The Influence of Cities on Human Progress," remarked that the original conception of the city came, as so many other potent factors in the world's progress had come, from the East. In Europe, Greece first felt the influence of Eastern civilisation, and the wondrous cities of Greece, with Athens at their head, came into being. There was much in those Greek cities that we, for all our boasted progress, might look upon with admiring envy. Cleanliness and sanitation were a religious duty. To have had within the city an ill-cleansed street, a polluted stream, an impure water supply, a dirty or ill-ventilated house, or a collection of refuse, an offensive smell, a drunken or indecent person, would have been to an ancient Greek a personal horror of the most revolting kind. The influence of Greece passed on to Italy, and Rome arose, and grew to be as perfect a sample of civic organisation and control as that of the Greeks, but also much more than that. It was the model upon which the Roman was prepared to shape, carefully and intelligently, the government of the semi-barbarous people whom his legions conquered, and it is to Rome we owe the inception of the political government and municipal constitutions of the cities of mediæval and modern Europe. But Rome grew greedy, tyrannical, luxurious, and corrupt, and at length she fell a victim to too much civilisation centred in a single city. The empire was swallowed up in the city. Her fate illustrated the danger of city worship. The centralisation of a great nation's political and social power in a single city was a source of weakness, and might have disastrous results all unsuspected until too late. The prosperity of a city and of a people consisted less in the multiplication than in the conservation of the individuals of whom it was composed, and the problem which faced the social reformer of to-day was how best to deal with the difficulties besetting this unwieldy growth of cities, and how to prolong the duration and brighten the prospects of a city life.

IT is an age of demolition, and we all know we must not set our affections upon anything in the shape of bricks and mortar, and No. 10, Downing Street is among the latest of the doomed buildings. Certainly, it is not a very imposing building, though it has been tenanted time after time by the men who "make history." The unpretentious-looking street, which has for so long been the political centre of the Empire, takes its name from Sir George Downing, who served under Cromwell. After a time it passed to the Crown, and George I. gave Walpole's house to the Hanoverian Minister, and Sir Robert removed



Chimney Stack, Wardley Hall, near Manchester: Sketched by E. Hartley.

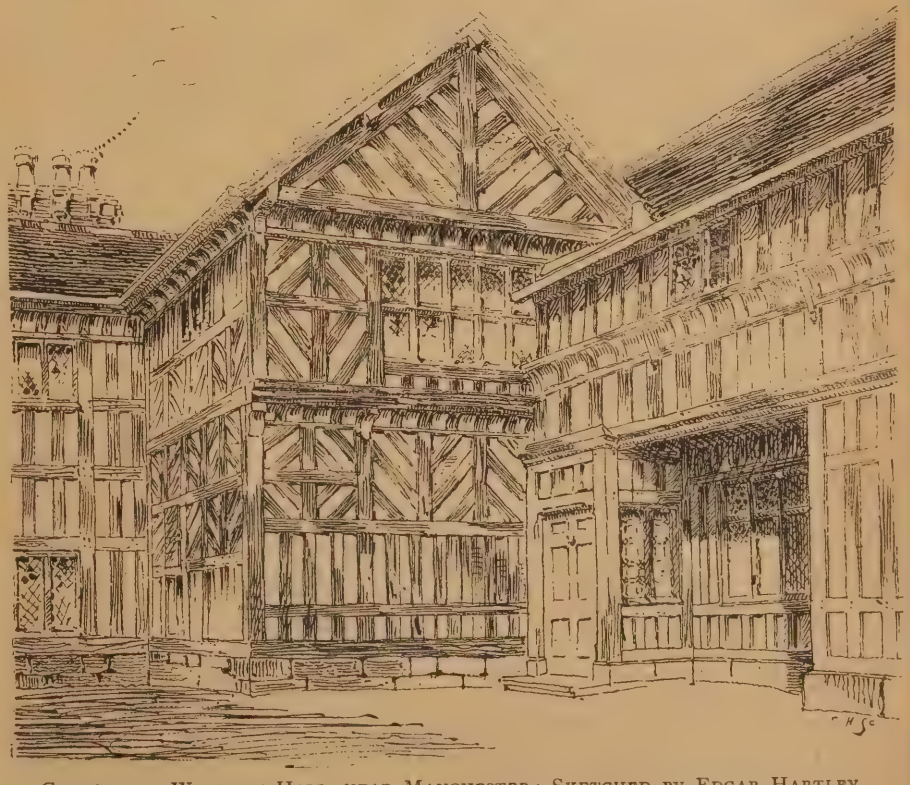
to Downing Street, who stipulated that No. 10 should be annexed to the post of the First Lord of the Treasury.

The Trocadero Restaurant, which has been erected on the site of the old Argyll Rooms and the Trocadero Music Hall, Piccadilly Circus, has been opened. The entrance hall, with its marble pillars and bronze capitals, is surmounted by a frieze, executed by pupils of the Royal Academy, illustrating the legend of King Arthur. The grill-room is in the French Renaissance style, with Cippolina marble, and a frieze in old copper. The two principal chambers of the establishment are the great central hall forming the restaurant and balcony, and the ball-room or banqueting-hall. The ball-room is decorated in the Empire fashion, and will accommodate about 200 people. In addition to these halls, there are Masonic lodge rooms, number of small dining-rooms decorated in Louis XIV. style, smoking, reading, and billiard-rooms. The electric light has been installed throughout. The New Conduit system of wiring has been used, the whole of the cables and wires being drawn into specially-prepared wrought-iron tubes insulated inside and provided with inspection-tubes as convenience dictates. The work has been carried out by Messrs. Strode and Co., and this is one of the largest buildings in London fitted with the system. Mr. W. J. Ancell has been the Architect, Mr. Martin F. Roberts the engineer, and Mr. C. W. Oatley the decorative artist and designer.

Does any serious thought for the old clock ever, one wonders, enter the mind of the restorer while at work on our ancient Churches? Why should the clock, which has done such great service for years past, not only, but of course mainly, as timekeeper, but also in being a decided feature to the Architecture of the fabric of which it, may we not truly say, forms a part—for do not an old tower and an old clock seem to have grown up together—why, then, should the clock be ignominiously pulled down when the work of restoration is going on, perhaps to make room for a modern timepiece, having possibly four staring dials, all quite and perfectly out of keeping with the style of work in which they are placed? As an instance of this we will take the fine old Norman Transitional Church of St. Mary, New Shoreham, Sussex, the Tower of which, a right noble specimen of the style, has recently been restored, and the work seemingly has been carried out in the most careful manner possible, as much of the old material as could be, having been used. So far so good! Now for the clock which has held its position for years on the south side of the Tower, the dial of which was perfectly plain, slightly curved on face, and possessing one long hand only, with which to point the time, a veritable relic of by-gone days. All this has been taken down, and the place where it formerly was, filled in, and rumours are abroad of substituting for it a clock with dials facing north, south, east, and west. Now, if old clocks must be removed, for we know that the works even of a clock must sooner or later be placed *hors de combat* in the great fight with time, surely this can be accomplished without removing the original dial; but, again, even supposing it be necessary to have an entirely new clock, one feels it should, at least, hold the exact position of its predecessor, and not have its faces distributed round the Tower as if to say, "Clocks are cheap nowaday, very!" Perhaps it is we want our church timepiece to do service as a town clock; if this be so, would it not be far better to have it with its ringing chimes, too often we fear a doubtful ornament, placed in some such building as our Town Hall; while our Church clock ticks silently and unpretentiously in teaching us, if we will but learn, as we feel it has ever striven to teach those who have long since gone, how that the night is fast spending, and day comes ever nearer and nearer to hand. And what clock can best teach this lesson but the Clock of Years!

Referring to our recent note on the Towers of Westminster Abbey, a correspondent calls attention to the fact that the late Mr. Wyatt Papworth, in a communication to Notes and Queries (4th S., viii., 127), supposes that the lower portions only of these Towers were executed during the years 1713–22 under Wren's direction, and that the upper portions, after Wren's death in 1723, were entrusted to his pupil, Nicholas Hawksmoor, who directed the works of the Abbey up to 1735. The Towers are said not to have been completed until 1745. The division in style of that which may be considered to have been executed under Wren's superintendence and that executed under Hawksmoor is clearly distinguishable about halfway up the Towers. As Towers they may be considered to have been from Wren's design, but their execution was left to the inferior supervision of the surveyors under and after Wren. Whatever may be the deficiencies in these Towers, and their shortcomings have been frequently canvassed, it must be conceded that, viewed as a whole, they impress one favourably by their proportion, simplicity, and massive treatment. They certainly compare favourably with the classic western end of, say, Milan Cathedral. The editor of Weale's "London and its Vicinity," published in 1851, in a short biographical sketch of Wren, p. 211, observes: "From the age of 13 to that of 86, we searched his memoirs in vain for any interval of time devoted to self, and even now from his retirement at Hampton Court, the helpless old man was carried to see and superintend his last and only unsuccessful work, the west front of Westminster Abbey, of which it is too often forgotten that he did *not* live to direct the upper and more objectionable parts."

The North-Eastern Railway Company has laid before the Hull Corporation details of a scheme of dock improvement at Hull, to cost nearly three-quarters of a million of money, which it is proposed to proceed with as soon as Parliamentary powers can be obtained. A new river-wall, nearly two miles in length, is to be built, and new dock and deep-water entrances to existing docks, which will be kept at spring-tide depth by pumping, are also provided for.



Courtyard, Wardley Hall, near Manchester: Sketched by Edgar Hartley.

STRAY NOTES ON SOME CHURCHES IN BELGIUM AND NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

IV.

THE position of the entrance to the Crypts beneath German Churches—many of them noble specimens of Romanesque architecture—varies. At Neuss you pass down into the Crypt by a flight of steps, one on either side that conducting up into the Choir. At Gladbach, Bonn, and Essen, this arrangement is reversed, there being one flight of steps down into the Crypt lying between the two leading up to the Choir. At Paderborn (where the Crypt is most extensive), Naumburg, and Hildesheim, the entrance is from either Transept. St. Patroclus, at Soëst, has a very small Crypt, lying just to the east of the southern arm from which it is approached. The capitals of the small columns in these Crypts are often carved in a very bold and effective manner, and deserve the closest study. This can always be effected, since the Crypts in German Churches are rarely, if ever, shut up, being fitted with an Altar, benches, and other instrumenta of public worship. At Paderborn, as well as at Herford, the Choir is square ended. And here I may take the opportunity of observing that the rectangular termination is by no means so insular a feature as is popularly supposed.* The aisleless pentagonal Apse, with its tall, sometimes transomed windows, has always been looked upon as a feature so peculiarly Teutonic,† that whenever a compromising arrangement occurs, as in the east end of St. Victor, at Xanten, it is generally

TRACEABLE TO FRENCH INFLUENCE.

Germany and England were both *very* strict regarding the orientation of their Altars; and this could not be rigidly adhered to in Chapels radiating from a procession path. Hence the almost universal adoption by the Germans of the aisleless, parallel-triapsidal plan. But as at Paderborn, at Herford, and pretty frequently in other Westphalian and Thuringian cities, we find the rectangular eastern termination. Paderborn presents it in the Cathedral, the Busdorf Kirche, and the Gau Kirche; at Herford we find it in the Münster and in St. Mary-on-the-Hill; at Osnabrück, in the Cathedral and St. John's; and at Erfurt several very English-looking examples of square ends lighted by triplets of lancets occur in the Churches which so richly bestrew that grand old city. The Osnabrück Churches are similarly fenestrated, while those in the Paderborn and Herford district have, generally speaking, had their Choirs lengthened in late Decorated times, and furnished with the geometrical or flowing traceried windows that grace that period. Reverting to Apses, those belonging to the numerous Churches of one of the most delightful of old North German cities—Soëst—perhaps offer the greatest variety of styles. Few towns in this part of Europe have retained their ancient circumvallations—now converted into agreeable walks—more completely than Soëst. The first view of it from the railway, with the massive Tower and metal Spire of St. Patroclus dominating the whole, is decidedly prepossessing, and it is very pleasant, immediately upon emerging from the station, to find yourself meandering through tortuous streets of timbered houses, without the intervention of a dreary "Station Road" (*Rue de la Gare*, or, *Eisen Bahn Strasse*) to fatigue you before entering upon the scene of enjoyment. There is no town whatever outside the walls, so little has Soëst grown. Beyond them stretches a flat tract of country, through which the great north road to the Baltic cleaves its way. Inside them, Spires, Towers, Apses, and red-tiled houses, with steep, thoroughly German roofs, are mixed up with old-fashioned gardens, orchards, streams, and mill-ponds, in a manner perfectly distracting to the artistic mind. The simple Apse terminating the vast rude Romanesque basilica of St. Patroclus as well as the one opening from the eastern side of its north Transept, are Soëst's earliest examples of the parallel-triapsidal arrangement. In the single pentagonal Apse of St. Maria im Hohe—a partly Romanesque Church having a western gabled Tower and slate Spire curiously inclining to the west—the earliest adumbration of tracery is observable in its two-light windows, both unfoliated, as is the circle in the head.

Of Early Middle Pointed Work, the deep, aisleless, grandly buttressed apsidal Chancel of the Thomas Kirche with its tall elegant windows of four lights, each geometrically traceried, and the less dignified but more constructionally interesting one of the Petri-Kirche, present excellent specimens. Flowing Decorated is represented in the Apse of the Paulus Kirche, a Church having a western Tower, with quadrilateral Spire of metal, and the distinction between Nave, Chancel, and Sanctuary marked by gradual diminution in breadth. These windows retain their original glazing, as do all those in the Wiesen Kirche (St. Mary-in-the-Meadows), whose parallel triapsidal eastern terminations afford a good specimen of that attenuation to which the fourteenth century German architects loved to carry their work. All these Churches—except St. Patroclus and St. Peter, are "hall" Churches, destitute of Clerestory. Looked at from a constructional point of view the Apse of the Petri-Kirche is the most interesting in Soëst. The proximity of this Church to St. Patroclus is very remarkable, a carriage way alone intervening between the Decorated Apse of the one and the Romanesque Porch of the other. Indeed, viewed from a little distance to the north-east, the two Churches appear to constitute one huge pile. Prior to the thirteenth century, the Petri-Kirche was, doubtless, a parallel triapsidal Romanesque Church like its opposite neighbour, St. Patroclus. During the

COMPLETE GOTHIC PERIOD

many an old simple round German Apse disappeared, to give way to a more lightsome structure, among them that belonging to the Church in question. Now, there was very little room between the two Churches for an architect to add a Choir to the Romanesque transept of the Petri-Kirche, of the *élancé* character presented by that of St. Thomas. Constrained therefore to make his Decorated Apse cover the same ground as that occupied by the Romanesque one, he was driven to adopt, for its shape, five sides of a dodecagon, providing each with a beautifully traceried window of two trefoliated lights. This Apse spreads out to the whole width of the old Romanesque eastern limb, and is joined on to the Transepts without any rectangular bay. The old transeptal Apses have been replaced by lofty hexagonal ones, with their inner sides cut off, and their outer ones canted to meet the principal faces of the Romanesque Transepts, the whole of whose eastern side these quasi-Apses occupy. Such an interesting piece of work demands study. It is not uncommon, especially in Westphalia, to find one of these lofty, lantern-like Choirs of the Middle and Late Pointed periods tacked on, so to speak, to a Romanesque or Transitional Nave and Transepts, or, as is more generally the case, a Nave alone. Such additions most probably owe their existence to incendiary causes, or to a desire for rebuilding this, the most sacred portion of the building, on a more grandiose scale. Besides the example just referred to at Soëst, we have it in St. Mary and St. Reinhold at Dortmund; in the great Churches of St. Mauritius at Münster, and St Mary at Lippstadt, both of which present several features in common, *i.e.*, the group of three Steeples—a massive one at the west end of the Nave, and a slimmer pair flanking the commencement of the Choir. St. Ludger at Münster has had a Late Middle Pointed Choir built on to its Romanesque Nave and Transept, while in Rhenish Prussia the Minster at Gladbach, St. Andrew at Cologne, and the Liebfrau-Kirche at Coblentz have received Choirs in a later and more *élancé* style. At Aix-la-Chapelle, the present Choir—"a stupendous lantern all of glass"—was fitted on to Charlemagne's old octagon in the fourteenth century, and at Essen, earlier in the same period, a poor Middle Pointed "hall" Nave was sandwiched, so to speak, between three remaining sides of a similar octagon, and two Romanesque bays, still to be seen over the Crypt. This Minster at Essen is a most curious building. It consists of (1) a Baptistery; (2) the Atrium; (3) the Church proper. The Baptistery has long since lost its characteristic Romanesque features, and is now a very mediocre Pointed Church of three bays with its windows gutted of their tracery. It has passed into Lutheran hands, but still retains its original dedication to the Forerunner of Our Saviour. The Atrium has an Arcade of four round arches on cylindrical pillars with cubical capitals. The Nave is *ouvert au jour*. The Aisles have wooden lean-to roofs. The Minster itself (Catholic) underwent an almost complete rebuilding in the fourteenth century, the only Romanesque portions left being, as I have just said, the three western sides of the octagon and the two bays standing over the Crypt, all of

VERY RUDE ARCHITECTURE.

The Church has been well restored, and its internal ensemble, despite the clumsiness of the Nave, is imposing from the presence of a raised Choir, rendered so by the Crypt. At the top of the steps leading to the Choir is one of those seven-branched candlesticks, so often met with in the German Churches, and dating from the last years of the tenth century. Although the solitary apsidal and parallel-triapsidal plan was generally followed throughout Germany, it is not unusual to find transverse-triapsidal Churches, *i.e.*, those having circular or hexagonally-ended Transepts. Such a trefoil headed plan, however, seems almost exclusively confined to the Rhine Provinces,* where it is first encountered in St. Quirinus at Neuss, a grand early thirteenth century Church exhibiting that mingling of Romanesque and Pointed which the Architects of that district knew so well how to illustrate, and which they persisted in retaining until the magnificence of Amiens, Beauvais, and Westminster stirred them to emulation in the Choir of Cologne, and the less aspiring, but assuredly more appealing Liebfrau-Kirche at Trèves; in St. Elizabeth at Marburg, and in the Cistercian Church of Altenberg, all of which, however, had the start of Cologne, and may be taken as exceptionally early instances of the Complete Gothic in Germany. St. Cunibert's at Cologne presents us with the best idea of this lengthy retention of earlier forms, completed as it was only in 1248, the year that witnessed the commencement of the Dom. Although the pointed Arch appears in the vaulting, and in the windows lighting its western Transept, St. Cunibert's is essentially a Romanesque building, following very closely the lines of the three great transverse-triapsidal Cologne Churches, viz., St. Maria in Capitolio, Gross St. Martin, and the Holy Apostles.† Although the core of many of these vast Romanesque Churches of the Rhine Provinces is of tenth and eleventh century date, the magnificent external appearance of such Basilicas as the Cologne group, Bonn, Andernach, Laach, Sinzig, and others, is due to a later period, *i.e.*, that of the Emperor Frederic Barbarossa, 1152–1190, and also to the earlier part of the thirteenth century. Additional embellishments were then made to them, and, in many cases, total rebuilding had perforce to be resorted to, to repair the damage inflicted under the War of Succession, which devastated the Rhine Provinces on the death of Barbarossa at the close of the preceding century, and laid many of the Rhenish towns in ruins. To the desire, then, of their Architects to rebuild them in their former style, we must attribute that strong Romanesque element which everywhere pervades such Churches as Bonn, Andernach, Sinzig, Coblenz, Limburg, Bamberg, and Gelnhausen all of which belong principally to the first half of the thirteenth century, but which, to an English eye, have much more the appearance of twelfth century buildings. Of this group, Limburg Cathedral, standing with its noble group of seven Towers above the Lahn, is perhaps the purest, and comes nearest to our idea of First Pointed; but to find a Church of this style in Germany comparable either in size or purity of detail with Worcester, Lincoln, Salisbury,

* In certain districts of France the Churches have square-ended Chancels. They abound chiefly in the villages of La Beauce, between Etampes and Orleans; also in the Touraine. St. Martin, at Tours, is a noble example. Laon Cathedral is square-ended, as are several Churches in the vicinity of that city. Creil Parish Church, Nogent les Vierges, and several others on the line from Beauvais to Paris are similarly planned.

† Of this type of Choir the grandest specimen I can call to mind is that of the Dom, at Erfurt.

* In the north-eastern districts of France we occasionally meet with the transverse-triapsidal plan. The vast Cathedral of Tournai, and the elegant transitional one of Noyon, have Apses to Transepts as well as Choir. The long connection between the Sees of Tournai and Noyon may probably account for the existence of such an arrangement. Soissons Cathedral has an apsidal south Transept, and the opposite one, before its geometrical rectangular termination was introduced, doubtless took the same shape.

† These western transeptal narthexes of the Cologne Churches of St. Cunibert and the Holy Apostles play no small part in investing their interiors with more than ordinary dignity. Mr. Butterfield seems to have had them in his mind when planning St. Alban's, Holborn.

Auxerre, Troyes, or any of that wonderful galaxy in the old Domaine Royale, is impossible. For, while in France and England the Romanesque gradually faded away before the Pointed, Germany, and especially the Rhenish districts, clung to it far on into the thirteenth century, abandoning it only then with great reluctance, to embrace a style which she never thoroughly understood, and too frequently made sad blunders in. One of our most enthusiastic ecclesiologists—Rev. J. L. Petit—in his "Church Architecture," one of those fascinating books which, once in hand, can only be laid aside with reluctance, has thus expressed himself on this interesting point: "It was as if that mighty river that bore the tide of Roman civilisation into the heart of Europe, had infused into the nations through which it flowed a veneration of Roman memorials, with a wish to preserve and perpetuate them, by establishing, according to the principles of their construction, a kindred and lasting style of their own."

MORE USEFUL THAN ORNAMENTAL!

NOTHING has done so much to mar and destroy the beauty of the country as the use of corrugated iron for roofing and building purposes. Its employment seems to be becoming more and more general, and one's feelings are continually being harassed by the discovery of some fresh spot whose rustic grace and beauty have been completely destroyed by the intrusion of this hideous, staring abomination; on whose ugliness, moreover, time has no ameliorating effect. The crude colour of new brick-and-tile soon disappears under the beautiful touch of Nature, the growth of lichens and mosses gradually producing a variety of pleasing and harmonious tints. Even slate after a time, and in favourable situations, falls more or less under Nature's kindly influence, and its cold, monotonous hue becomes varied and enlivened by patches of yellow lichen; but neither time nor anything else can ever convert corrugated iron into a thing of beauty. Into scenes of otherwise perfect harmony it introduces a screaming discord. Vegetation in general seems to have a strong antipathy for iron, and carefully avoids contact with it. No moss or lichen will have anything to do with these widely-used "galvanised roofing sheets," nor can the hope be entertained that ivy or any other creeping plant will ever spread a mantle of greenery over their glaring ugliness.

THE SUBSTITUTION OF IRON

for wood, brick, or stone has in other directions done much to deface the appearance of the country. In the case of "dead" fences alone, how far more fit and pleasing to look upon where the old riven oak palings, once so general, than the obtrusive stretches of iron fencing which have so largely supplanted them, and which now deface so many English parks and meadows. Their harsh, rigid, and assertive lines serve to draw away the eye from those subtle curves and undulations of surface, which a rough post and rail fence would in many cases enhance and accentuate. The varied greenish grey tints of oak palings or rough hewn wood fences of all sorts, always harmonise perfectly with their surroundings; tree trunks, foliage, masonry, or whatever else they may be; whereas these formal iron fences, though no doubt useful for protecting a growing fence, always tend to destroy that natural rustic simplicity which is perhaps the principal charm of the country.

THIS IRONWORK

has nothing in common with the surrounding trees and hedges, but suggests town ways and usages; and one can hardly help feeling that it is entirely out of keeping with blooming cottage gardens, wayside meadows, and grazing cows. Fences made of wood, on the contrary, seem thoroughly to belong to such scenes, and, like many old cottages, barns, and other buildings, acquire in time the appearance of having grown up there in company with the neighbouring trees. They are, as it were, a mere adaptation of the surrounding stems and branches to a particular purpose. But ugly and objectionable as iron fences certainly are, they are quite insignificant as destroyers of beauty when compared with the great dreary expanses of cold, unsympathetic metal which now thrust themselves on our unwilling gaze wherever we go, and when one sees these glaring sheets of iron replacing in all directions the warm, ruddy hues of tiles, or the exquisite greys of reed or straw thatch (at once the most beautiful and most comfortable of all roof coverings), one shrinks from imagining what the appearance of the country will be a generation or two hence.

A MODEL DESTRUCTOR.

MUNICIPAL AND COUNTY ENGINEERS AT BRISTOL.

A LARGE number of Civil Engineers recently visited Bristol to attend the Western Counties District Meeting of the Incorporated Association of Municipal and County Engineers. The gathering took place at the Guildhall, and was under the presidency of Mr. F. J. C. May, Borough Engineer of Brighton. Mr. T. H. Yabbicom, Bristol City Engineer, read a paper descriptive of the Corporation destructor and depôt at St. Philip's. In the course of his contribution Mr. Yabbicom said: The depôt comprises a refuse destructor, stable, and workshops, and occupies an area of 5 acres in the south-east of the municipal area, bounded on one side by the tidal River Avon, across which a girder bridge of 100 ft. span was constructed to give access from the part on the west side of the river, and approach roads with easy gradients laid out on embankments. Previous to 1892 the collection of house refuse in Bristol was made by one or more contractors, who were allowed to tip whatever found its way to the carts on land within the borough boundary. In 1891 the author was directed by the Sanitary Committee to visit several of the great towns, and ascertain the various plans adopted by their local authorities for the collection and disposal of house refuse, and for the cleansing and watering of the public streets. The report resulted in the Sanitary Committee recommending the Council to take into their own hands the collection of the house refuse, the cleansing and watering of the streets, and to put a stop to tipping refuse on sites within the borough. It was decided to build a destructor capable of treating about one-half of the estimated collection of house refuse, and wait the result before proceeding to construct sufficient cells to deal with the whole; low-lying land adjacent to the river outside the borough boundary being rented to receive the surplus. Although the fires were lighted in November, 1892, the heat was applied very gently at first, and it was not until June, 1893, that the cells were worked to their full capacity, when it was found that by damping down on Sunday, about 560 tons could be passed through in the six working days, and that by working all seven days the amount specified in the contract with Messrs. Manlove and Alliott, namely 640 tons, could be just reached; but the clinker was of a soft, inferior character, through the fires being drawn too rapidly. In the autumn of 1893 the author had a steam blast applied to eight cells on the south side, with the result that there was a considerable increase in the consumption of refuse, and a much higher temperature in the cells on that side, together with an improved clinker. For the past two years the average amount burnt, from twelve o'clock on Sunday night until noon on the following Saturday, has been 650 tons, which averages about 7½ tons per cell during twenty-four hours. The actual figures for the year ended March 31st, 1895, were 33,169 tons burnt, and during that period six holidays of one day each were allowed to the workmen. The firemen or stokers are 18 in number, divided into three shifts of eight hours each, half an hour's rest and meal-time being allowed during each shift, and, as already stated, no work is done on Saturday afternoon or Sunday; but it is doubful whether it is good for the destructor building to allow the periodic expansion and contraction to take place which result from working at high pressure for six days and cooling down on the seventh, and whether the cracks and fissures generally found in destructors after a few years' work are not due to this cause. The residue after burning amounts, on the year's average, to a fraction over 34 per cent., but varies considerably from day to day, according as the refuse is drawn from the richer or poorer districts of the city; in fact, some from the east end comes in the form of almost unburnable dust. Of the 11,500 tons of residue, 9,667 were sold or put to some useful purpose, instead of being removed to a tip, which would have entailed a further cost of about £725. A vertical engine of 20 horse-power, by Tangye, utilises the steam from the boiler, and drives two mortar pans and a stone-breaker. The ground mortar is used on Corporation works, and any surplus made finds a ready sale. The rough clinker is an excellent ballast for new roads and footpaths; the finer is useful for tar paving, and with Portland cement forms good artificial stone, either in the form of flagging, steps, window-sills, door-heads, sink drips, pillar blocks, and a great variety of purposes. Recently, the author has covered the sides and bottom of one of the swimming baths belonging to the Corporation with a layer compound of the residue, Portland cement, and chalk, forming a clean, bright, and impervious lining, easily cleansed. During the twelve months ending March 31st last, the following residues were used:—Fine ashes, 96 tons; breeze, 540 tons; screened ashes, 3,491 tons; rough ashes, 12 tons; clinkers, 2,734 tons; ditto used in ground mortar, 2,736 tons; flue dust, 58 tons; total, 9,667 tons. A total of £11,418 was expended before commencing work, and since then £1,442 has been spent on the engine, mortar pans, and shedding. The outlay during the year ended March 31st last, for wages of all persons directly or indirectly connected with the work, repairs, and all other charges, not including interest on first cost, amounted to £3,600, and the credit by the sale of residual products to £1,522, leaving a balance of expenses of £2,078; about 1s. 3d. per ton on the amount of refuse burnt. A range of stables, provided with 70 stalls, four loose boxes, and two isolation stalls, has been constructed at a depôt in another part of the city. The stables, cart sheds, and all buildings connected with them cost £13,650, and were constructed by day labour without the intervention of a contractor. After taking over the work and carrying it out, it soon became evident that it was necessary to have premises near the depôt, where repairs could be readily and quickly made, and the Corporation secured a site adjoining and parallel to the range of stables at Albert Road, and there workshops were erected as well as offices and stores. Like the stables, these buildings have been constructed by day labour under the direction of Mr. W. H. Baker, and the cost has been met by a loan of £6,100 for construction and furnishing. The author claims no originality in employing the residue clinker to make artificial flagging, but at the same time it has convinced him that a clean, durable material, of pleasing appearance, can be prepared at a much less cost than that of stone.

IT is proposed to restore the chancel of Lacock Church, Wiltshire, as a memorial to Dr. W. H. Fox Talbot, the inventor of photography. A committee has been appointed to carry out the work of restoration according to the plans of Mr. Harold Brakspear, architect.

WHAT is said to be the smallest electric light installation in the world is to be found in the village of Bremen, near Dormbach, Thuringia. It comprises a single arc lamp installed in a church, the lamp being operated by a small dynamo driven by the wheel of the village mill.

BATTERSEA VESTRY has resolved to erect Municipal Workshops at the rear of the Municipal Buildings, Lavender Hill, in order to enable the Vestry to carry out the whole of their works without the intervention of a contractor. It is proposed to erect the necessary buildings at an estimated cost of £3,508.

BY an unfortunate accident, Mr. James Brown, Architect, of 104, Rooden Lane, Heaton Park, Manchester, was killed while entering a train at Prestwich Station, when he fell between the carriages and the platform. Before the train could be brought to a standstill he was badly injured, and was conveyed to the Royal Infirmary, Manchester, where death took place shortly after admission.

THE Glasgow Corporation has bought the tramways in Govan, which is an independent burgh of 60,000 inhabitants. The unity of the municipal service for a population of over 700,000 will now be obtained, as the Glasgow Corporation will in future serve the burghs of Kinning Park, Partick, and Govan. Although the overhead trolley system of electric traction was recommended for the Glasgow tramways, it has not been adopted, and a deputation has been sent to America to inquire into the latest methods of electric or mechanical traction.

Professional Items.

TUNBRIDGE WELLS.—In connection with the new Parochial School being erected for the east end parish of St. Barnabas, the foundation stone was laid last week. The Schools are being built from designs by Mr. H. Cronk, to cost over £5,000, and are situate in the Quarry Road, near the Grosvenor Bridge.

DUNFERMLINE.—The new Church elected at Kelty was formally opened last week. The Church, built from plans prepared by Mr. Houston, Dunfermline, is crucifix in form, with Nave, Transepts, and a Gallery. The building accommodates 500 persons. It cost £1,600, to which the late Earl of Moray contributed £1,000.

TARLETON.—The memorial stone of the new Church of England Schools at Tarleton, between Southport and Preston, was recently laid by Lady Lilford, the scheme being estimated to cost £3,000, and including a residence for the head teacher. The site is adjacent to the Church, founded 10 years ago.

HASLEMERE.—Shottermill Church is to be reseated and the floor removed and laid with wood blocks, and the spire repaired and other repairs carried out. Messrs. Brown and Barrow, of Amberley House, Norfolk Street, Strand, are the Architects, and the estimate of Messrs. Harding Brothers, of Shottermill, has been accepted for carrying out the work.

BURBAGE.—A new Co-operative Hall has been opened. The building is situate in the centre of the village, and comprises for business purposes, grocery, butchers', bakers', and drapery departments, ample accommodation being afforded for each, the public hall extending over the entire length of the shops below. Mr. J. Ball, of Hinckley, was the Architect; Messrs. Graves and Farmer, Hinckley, contractors; and Messrs. Paul, Haddon, and Parsons, sub-contractors.

BOOTLE.—The Baptists of Bootle have erected, at a cost of about £2,800, a new Chapel in Stanley Road. The Chapel is built in the Romanesque style of Architecture, of grey brick, with terra-cotta dressings. Inside, including the gallery, there is seating accommodation for some 500 persons, with room for an additional 30 in the choir stalls. At the rear of the Chapel there is an iron schoolroom, which it is intended to replace by a more substantial brick building.

CHESTERFIELD.—The Chapel in Elder Yard, off Saltergate, Chesterfield, enjoys the distinction of being the oldest Nonconformist building in the town. It is now undergoing restoration under the direction of Messrs. Flockton and Gibbs, of Sheffield. Messrs. R. Wragge and Sons have in hand the masonry; Mr. Charles Rollinson the wood work; Mr. Goodwin the painting; Mr. F. Hill the plastering; and Mr. Mitchell the plumbing. A new heating apparatus is being supplied by Messrs. Newton, Chambers, and Co., and the organ is being rebuilt by Keats, of Sheffield.

MARKET HARBOROUGH.—New public swimming baths were opened last week by Mr. J. W. Logan, M.P. The site is near the Little Bowden Police-station. The contractor for the work was Mr. E. Fox, of Leicester, his tender being £1,499. The building is from the design of Mr. H. G. Coales, surveyor to the Council, and consists principally of red brick, with caps of Park Spring stone to the gables, and insertions of Debyshire gritstone. The swimming bath is 75 ft. long and 25 ft. broad, and varies from 7 ft. to 3 ft. 6 in. in depth. There are also four private slipper baths, with 24 dressing-rooms, with gallery above.

DUNDEE.—St. John's Episcopal Church has just undergone a thorough renovation, several important improvements, both internal and external, having been made on the edifice. The Chancel has been enriched by an oil painting framed in deep gilded oak and placed above the Altar. The subject is the Crucifixion, after the well-known Albert Dürer in the Dresden Gallery. The floor is laid with red mosaic tiling. Messrs. J. Mackay and Son, Castle Street, executed the painting and decoration; R. Sheach was the builder of the porch; the wood fittings were by Messrs. D. P. How and Son; and the plaster and mosaic work were carried out by Mr. Alexander M'Ritchie, Dundee.

PAIGNTON.—Paignton School Board will shortly open a new Girls' School. The plan and arrangement of the school are much in advance of many of the old buildings still doing duty in larger towns in the west. The designs are by Messrs. Norman G. Bridgman, A.R.I.B.A., and W. H. Bridgman; and it has been built by Mr. H. P. Rabbich, of Paignton. It is of Gothic style, faced with local limestone and Monk's Parkstone dressings. The main entrance is in the centre of the front. The central hall is approached from the lobby, and the six class-rooms surround the hall, and are spacious and well fitted. Including the central hall accommodation is provided for 500 children.

HEATON.—On Thursday last the new Baptist Chapel was opened. Stone for the building has been obtained by quarrying upon the site of the old Chapel, and a commodious structure in an adaptation of the Gothic style of Architecture has arisen. The Chapel is entered from Highgate by a flight of steps which leads to a large Vestibule. On either side of the Vestibule staircases give access to a gallery above capable of holding about 100 persons, and also to the basement floor below. The seats on the floor of the Chapel are of varnished pitch pine, and are semi-circular in plan. The Chapel, including the gallery, holds about 500 persons. In the basement of the building are an assembly-room, seating about 250 persons, class-rooms, and various rooms for meetings. The total cost of the building, which was designed by Mr. John Jackson, of Bradford, has been rather under £4,000.

LAUNCESTON.—Foundation stones of a new Chapel, in course of erection in Tower Street, adjoining the old premises, were laid last week. It will be in the Early English style of Architecture, with a frontage of 38 ft., and a length of 67 ft. The main entrance contains a Vestibule inlaid with mosaic tiles, the walls being of pitch pine. Behind the rostrum at the north is to be a raised Organ Loft with accommodation for the Choir, and there will be Vestries at the east and west ends, together with an entrance for the ministers and choir. The walls are being built of stone from Yealm Bridge, Lifton Park, Polyphant, and Plymouth, and Delabole slate will be largely used in the roofing. There will be seating room for 270. The contractors, Messrs. Broad and Werrin, are working to the designs of Messrs. Wise, Architects.

NEWTON-LE-WILLOWS.—Extensive improvements have been made in the Chapel at Aysgarth School, Newton-le-Willows. The Chapel forms a portion of the school buildings, and will seat comfortably 150 worshippers. The panelled roof and seatings, which are of pitch pine varnished, harmonise with the extensive and elaborate decorations. The new work in the Chancel consists of a carved oak Super-Altar, the three panels of the Reredos are lined with olive-green silk. The roof of the Chancel is panelled in pitch pine. All the carving is an innovation of thirteenth century work. The east window is of stained glass, and is an allegorical representation of simplicity and purity. The re-decorating work has been executed by Messrs. Bennett and Sons, of Manchester.

EDINBURGH.—Newington Parish Church has been reopened after having been entirely redecorated and fitted up with the electric light. The large flat ceiling has been effectively treated in creamy white, soft yellows, and subdued blue; the walls above the gallery are painted yellow, enriched with an arrangement of horizontal and vertical bands in a deeper yellow, with ornamentation in a soft red at intervals; while the walls below the gallery are done in rich red, also relieved by cream-coloured bands. The pulpit and the front of the gallery have been stained in dark colour, relieved by lines of gilding, and the ornamental columns which support the gallery have been treated in blue-grey. The work of decoration was executed by Messrs. G. Dobie and Son, George Street.

BROOMHEDGE, IRELAND.—In one of the most prosperous and attractive districts of South Antrim a successful beginning has been made in the provision of a new Methodist Church, being erected at a cost of about £600. The builder is Mr. Walter Law, of Moita, who is carrying out the work from the plans and under the superintendence of Messrs. J. J. Phillips and Son, Architects, Royal Avenue, Belfast. When completed the edifice will occupy an elevated position on the county road from Maze station to Broomhedge. The new building will form an open quadrangle. In the centre of this is the manse, the two wings being formed by the new Church on the one side and the old Church, now to be altered into schoolroom, on the other. The main gable, with the entrance porch, will face the road. The Church will be built of brick, with stone dressings in the front, and the architectural treatment will be simple in style, with chaste dignity, free from expensive ornament. Seating accommodation will be provided for 200 persons.

GOVAN.—The foundation stone of St. Bride's Church, Partick, the first of a new series of Churches which are being erected in outlying districts of the parish of Govan, was recently laid. The new Church, which is situated at the south end of Rosevale Street, Partick, is being built of dressed stone of a red colour, with roof of open timber and it will accommodate 800 persons. In addition to the Church proper, there will be a hall capable of accommodating 300 persons, and it is hoped that eventually a manse will be attached to the Church. The interior of the building will be made up of a large open Nave, free from galleries, a single side Aisle separated from the Nave by an arcade of four arches and with a gallery, a deep Chancel for the Choir and the Communion table, a side Chapel, an organ chamber, and a font recess. Church and hall together are estimated to cost £4,000.

ABERDARE.—The Intermediate School building, which is situate on a plot of ground near the lower entrance to the Public Park and adjoining the Park Board School, has been opened. The school is a neat stone building, with a central hall and a number of class-rooms, the central hall being large enough to hold the whole number of the children. There is also a cooking class-room provided, while a workshop and laboratory are erected detached from the main building, and a space provided for a gymnasium. The building, which cost some £5,000, was built by Mr. David Jenkins, of Swansea, the Architect being Mr. John H. Phillips, St. John's Chambers, Swansea, whose plans were selected in open competition by the assessor, Mr. Euan Christian, F.R.I.B.A., Surveyor to the Charity Commissioners, London. A master's house is now in course of erection upon the site, the contractor being Mr. John Morgan, Aberdare, and the Architect Mr. J. H. Phillips.

LAVENHAM.—New Schools have been built, and opened by Mr. Cuthbert Quilter. An excellent site was found at the junction of Barn Street and Bolton Street, close to the Market Place and the famous old Guildhall, and not far from the ancient house which was formerly Lavenham Grammar School. The Architect engaged was Mr. J. S. Corder, of Ipswich, and his plans show a "mixed" school, of which the main room measures 90 ft. by 26 ft. the height to the ceiling being 16 ft. 6 in. At the west end there are separate departments for infants and babies, the seats here being in the usual gallery form. Large cloak-rooms are provided for the different sections, and on the first floor an apartment is reserved as board-room and teachers' sitting-room. The important feature of proper ventilation has been duly regarded, while the warming is carried out by means of Marlborough stoves, which have a movable canopy by which the heat and the consumption of fuel may be regulated as required. The building contract was carried out by Messrs. Grimwood and Sons, of Sudbury and Ipswich.

GATESHEAD.—The enterprise of Mr. Weldon Watts has provided Gateshead with a handsome new Theatre. The Metropole Theatre, which was recently opened, takes the place of the Queen's Theatre in High Street. Both the theatre and hotel attached are faced with red-pressed bricks, with elaborate stone dressings. The theatre is capable of accommodating about 2,500 persons.

The pit is 60 ft. wide and 60 ft. long from curtain to back wall. The depth of the stage from the curtain line to the back wall is 38 ft., and the width 60 ft., thus giving room for the production of most complete scenic effects. The pit and gallery entrances are in High Street, and those to the dress circle and stalls are in Jackson Street. The buildings will be heated by hot-water pipes and lighted by electricity. Mr. Wm. Hope, of Newcastle-on-Tyne, is the Architect, and Mr. S. F. Davidson, of Heaton, the contractor for the whole of the buildings. The decorating and furnishing have been done by Messrs. Dean, of Birmingham, the electric installation by Messrs. Rowland Barnett, and the heating by Messrs. Dinning and Cooke.

Barry.—The Barry Urban District Council has for some time past been actively engaged in considering the question of the erection of municipal buildings. A site in the centre of the town, at Barry Dock, was secured some years ago. The new buildings will face Holton-road and the new road leading to Cadoxton, at a spot nearly opposite the present Free Library and Reading-rooms. Competitive designs are to be advertised for without delay, the premiums fixed being £100 and £50 respectively for first and second. The estimated cost is not to exceed £10,000, inclusive of fittings, which do not necessarily comprise furniture. In all, 43 rooms will be required, besides the usual lavatory accommodation, &c.; the public library to be provided with reference library, reading-room, magazine-room, ladies' reading-room, committee-room librarian's office, and museum. In the public offices will be provided ample accommodation for the clerk, surveyor, inspector of nuisances, and their various clerks and officials; and provision will also be made for the accommodation of the officials of the gas and water department.

Dundee.—Since the introduction into Dundee of electricity as an illuminating power, surprise and dissatisfaction have frequently been expressed at the backwardness of the Town Council in prosecuting the work of lighting the principal streets within the area by means of the arc lamp. In Edinburgh, Glasgow, and Aberdeen within the past two or three years the progress of electricity as a street-lighting agent has been rapid and extensive; but in Dundee, provided though it is with a splendid electrical station, nothing has been done in this direction beyond the erection of the four lamps in High Street. A report, however, has recently been prepared by Mr. Tittensor, the Electrical Engineer, showing projected extensions of the system upon a large and comprehensive scale. It is understood that the scheme makes provision for the erection of 60 arc lamps for the lighting of the central streets of the city, including Reform Street, Nethergate (as far as South Tay Street), South Tay Street, Overgate, Murraygate, Cowgate, Commercial Street, Dock Street, and Union Street. The lamps suggested are similar to those in use at Brighton, consisting of a spherical globe, with a canopy to throw the light upon the street below.

Bramhope.—The new Wesleyan Church is a great improvement upon the old Chapel erected in the year 1837. It is built in the decorated Gothic style, and consists of Nave, Transepts, Chancel, and Organ Recess. The windows are richly traceried and varied in design, and there is a Tower with Spire rising to a height of 75 ft. The interior has an open roof of pitch pine. The seating is also done in pitch pine, with the exception of the Choir Stalls, which are of polished oak with carved ends. The walls are built of stone from the neighbourhood of Apperley Bridge and Bradford. Mr. W. J. Morley, of Bradford and Harrogate, is the Architect, and the contract has been carried out by the following:—Masonry, Mr. T. Lawrence, Horsforth; joinery, Mr. S. Kaye, Pool; plumbing, Messrs. Suttle and Son, Otley; plastering, Mr. A. Taylor, Eccleshill; slating, Mr. W. Walker, Otley; painting and decorating, Messrs. Couldwell and Son. The carving of the pulpit and font has been done by Mr. R. Boys, of Bradford; the marble work by the Leeds Slate and Marble Company; the brasswork by Messrs. W. McGeoch and Co., of Birmingham; and the wood carving by Mr. R. Breckin, of Bradford. The total cost is put at about £2,500.

Kirbymoorside.—Foundation stones of a new Roman Catholic Church at Kirbymoorside were recently laid. The new Church is from plans by Mr. Bernard Smith, F.R.I.B.A., of London, and when completed will seat 120. It is to be built in the Early English style, and is designed to consist of Sanctuary, 16 ft. by 16 ft. internal dimensions, and 29 ft. to ridge; Nave, 40 ft. 4 in. by 20 ft., and 30 ft. to ridge, with Priests' Sacristy 13 ft. by 11 ft., and Boys' Sacristy 9 ft. by 9 ft., with heating chamber underneath on the north side, and a south Porch 9 ft. 6 in. by 7 ft. The exterior is faced with a local stone from Sleighholmedale and lined with bricks. The east window is of three lights. There is also a three-light window in the south side of the Sanctuary, with piscina under. There are five lancet windows in the Nave, and at the west end there is a three-light window. The west Gable is surmounted with an ornamental bell gablet to correspond with the buttresses. There are three steps from the Nave to the altar with Carrara marble. The whole work is being carried out by Mr. Anthony Lyons, contractor, of Norton, Malton.

Edinburgh.—A new Branch Public Library, Reading Room, and Recreation Hall, are being erected at the corner of Murdoch Terrace and Dundee Terrace, Dalry. The site, which measures about 75 ft. square, stands at the upper end of the Telfer Subway. The principal elevation, which is towards Dundee Terrace, shows two storeys, with large mullioned and transomed windows, and a wide doorway, to which ornamental character has been given by flanking pilasters having carved capitals, and by an artistically carved frieze. On the street level are the entrance corridors and borrowing department, on the upper floor are a small hall, and staff and committee rooms, and in the attics is a caretaker's house. From the corridors backwards the building is but one storey high. On the west is the Nelson Hall, while on the east are the reading-room and library. The Nelson Hall, which is cut off from the rest of the building by a series of arches that are to be filled in with glass, presents a handsome appearance internally—the roof, 35 ft. high at the apex, and pierced by numerous lights, being carried on open timbers, upon which some ornamentation has been bestowed. The reading-room and library are separated from each other by iron columns which carry an open timber roof over both at a height of 31 ft. Together the reading-room and library measure 55 ft. by 36 ft. in area.

Balsall Heath.—The new Church which has been provided for the Roman Catholics of the Balsall Heath district was opened last week. The new building will consist, when complete, of a Nave 8 ft. long by 22 ft. wide, and two Aisles 11 ft. wide, a Sanctuary with Apsidal end 22 ft. by 22 ft., two side Chapels, a Baptistery, and priest's house and Choir Sacristies. The whole of this, except the Sacristies and a portion of one of the Aisles, has been erected. When complete the seating will accommodate 450 persons. The exterior is of red brick and Doulting stone, and is of Romanesque character. The interior of the walls, and the Nave and Sanctuary piers, are finished in plaster, to allow of future coloured decoration, with enriched string and niches for statuary over the piers. A number of these have already been filled with figures of saints. The ceiling is of wood, with pitch-pine panels. The organ gallery is over the front porches. The design was originally entrusted to Mr. Albert Vicars, of London, but, owing to his long illness and ultimate decease, the drawings were prepared and the work carried out under the supervision of Mr. Ernest Avern, of London. The high altar and the two side altars, dedicated respectively to "The Sacred Heart" and "Our Blessed Lady," have been executed from the Architect's designs by Messrs. Boulton and Sons, of Cheltenham, who have also supplied the statue of St. John on the exterior of front, the statues in the niches of the sanctuary and the font. The contractors are Messrs. Harley and Son, of Smethwick.

Birkenhead.—The new Church of St. Michael and All Angels, Carlton Road, Oxton, of which the foundation stones were recently laid, when completed will provide seating accommodation for 800 persons, and the building will be of a plain design in the early pointed style of Gothic. The plan is for a wide Nave, with north and south Aisles and Transepts and a spacious Choir and Chancel. The rooms on the basement floor include a large room for meetings. The floor of the Church will be of solid wood blocks for the Nave, Aisles, and Transepts; the Choir and Chancel will be laid with tiles of plain design in suitable colours; the roofs, seats, screens, &c., will be of pitch pine stained, and the arches to the Nave, Chancel, and Transepts will be finished in red terra-cotta. Externally, the walls will be faced with grey brick, the gable copings, sills, and buttress weatherings being of red stone, the windows and doorheads, tracery, &c., and the string course and dressings being of red terra-cotta. The roofs will have Welsh slates and red ridges, and a lofty bell turret rising from the east side of the south Transept will have an oak shingled roof, with iron vane and a teakwood belfry on a stone base, with gable buttresses and corbels. The Architects are Messrs. Francis and George Holme, whose designs were selected in competition. The general contractor is Mr. William Hall, of Liverpool, whose estimate for the portion of the Church now to be erected amounts to the sum of £3,700. The heating apparatus will be supplied by Mr. J. Bramham, of Liverpool, and the terra-cotta work by Messrs. Clark and Rea, of Wrexham.

Midleton.—The new Catholic Church, which replaces the existing decayed structure, was consecrated on Sunday last. The Church stands on a very suitable site on the Midleton Gardens, Chapel Road, and is noticeable for simplicity of design and solidity of structure. The building is in the style of the thirteenth century, of a simple and severe type. Nearly all the windows are lancets, tracery being only introduced in the Façade and Chancel, and in the windows of the Clerestory. The length of the building is 168 ft. 6 in. and breadth of 72 ft.; the Clerestory walls are 42 ft., and the Aisle walls 20 ft. high, and the Tower and Spire 178 ft.; the Façade presents an imposing appearance, the gable of the Nave being flanked on one side by the Tower, and on the other by an octagonal Turret 82 ft. high. The Gable is enriched by traceried windows, and by a canopied niche, containing a statue of the patron saint of the Church, 9 ft. high. The entrance to the Nave is by an arched doorway, 8 ft. wide, leading to a spacious Porch under the Organ Gallery, which is reached by a special staircase in the Turret. There are also entrances in the Aisles on one side through the Tower, and on the other through a Porch projecting from the side of the Church. The Baptistery is placed at the end of this Aisle. There is a large rose window in the centre Gable, surmounted by a cross rising to the height of 75 ft. over the ground, with chiselled dressings and bands of darker stone. All the internal walls are lined with brick, built into a cavity to ensure dryness. The Nave arcade has columns with limestone caps and bases and shafts of red polished granite, and the Nave arches are of dressed Bath stone, which stone is also used for the carved caps of the Church windows and shafts supporting the roof principals. The Architect is Mr. J. C. Ashlin, and the builder, Mr. J. J. Coffey, Midleton. The total cost, including site, will be about £19,000.

Belfast.—The Broadway Presbyterian Church was opened last week. Occupying a prominent position adjacent to Broadway, the Church faces the Falls Road. A lofty Tower, crowned with a copper-covered Spire, placed at the north-west angle of the front façade, forms an important feature of the design, for which a simple treatment of thirteenth century Gothic has been adopted. Red brick walling, with some red sandstone dressings, has been used at the principal doors and windows with good effect. As close on 1,000 sittings were required, the plan was arranged with Nave and Aisles, with shallow Transepts occupying a space of about 90 ft. by 60 ft. A Session Room, heating chamber, &c., are placed at the rear, where it is intended shortly to erect Lecture Hall and Church Rooms. Three large arched doorways, resting on grey granite shafts, afford access to the Church and to the gallery staircases, which are placed in the Tower and in a projection off the Vestibule. Cutstone gablets, rising from a carved string-course, are placed above the doorways. An imposing tracery window of five lights, with moulded jambs

and arch, occupies the centre of the main Gable, which terminates at a height of 56 ft. in a bold finish. Under the coping are placed terra cotta enrichments, which also extend along the gable of projecting staircase. A range of boldly-projecting buttresses, between which are lancet windows, extend along each side of the building, which is further relieved by the Transept, each with a three-light window and arcading below. Above the tall belfry windows, which are filled with louvres, rises a Spire, resting on a stone cornice, and terminating in a gilt vane at a height of 120 ft. The heating is effected by Messrs. Musgrave's high-pressure small-pipe system, the lighting by Messrs. George Jones, Great George's Street. Mr. Thomas M'Millan is the contractor for the entire works, and the Architects are Messrs. Young and Mackenzie.

WORCESTER'S NEW INSTITUTE.

As a memorial of the Jubilee of the Queen's reign, the Victoria Institute at Worcester has been opened at a suitable time. The foundation stone was laid by the Duke of York, on April 3rd, 1894. The institute has cost some £45,000, and will serve as an educational centre for the county. A technical school, comprising an organised day school of science and evening classes, the old-established school of Art, the free public library, a picture gallery, and the important collection of the natural history museum named after Sir Charles Hastings, have been brought together under one roof. The nucleus of the institute fund was furnished by £660, granted from the Worcestershire Exhibition surplus. When the scheme began to assume its wider aspects the Corporation of Worcester devoted to it £7,000 from the enfranchisement funds of the Bridge Street rents. A central site was secured

ADJOINING THE SHIRE HALL,

and bounded on the other three sides by Foregate Street, Taylor's Lane, and Sansome Walk. Plans prepared by Messrs. J. W. Simpson and E. J. Milner-Aller were selected, and as the estimates showed that the cost of the scheme would be even greater than had been anticipated, the Council was prevailed upon to make a further grant of £5,000. The institute occupies an area of 2,330 square yards, in two blocks, the library block fronting Foregate Street and the schools block fronting Sansome Walk, and both blocks having entrances from Taylor's Lane, which thoroughfare has been widened and improved. The effect of the elevation has been much discussed—probably because of its strong contrast with the sober regularity of the adjoining private buildings and the classical sombreness of the Shire Hall. The design is in

QUEEN ANNE STYLE,

with some Italian modifications. The exterior is of red brick, with buff terra-cotta ornament. Over the principal entrance, which is in Foregate Street, are the Royal Arms in terra-cotta, over the principal gable is an emblematic figure. In the library block the central entrance leads directly from Foregate Street into the ante-vestibule, an open gallery on the first floor, with seats in the recesses of the balustrade and giving greater dignity to the ground floor by increasing the height, and at the same time improving the light and ventilation. A staircase of marble and mosaic leads to the museum and Art galleries on the first floor. On the ground floor the reference library, 41 ft. by 20 ft., is next to the Shire Hall. The news room, which is 84 ft. by 22 ft., with end bays, is situated in Taylor's Lane, and has a separate entrance from that street. Throughout the floors are of wood blocks, and the wood fittings of walnut. Direct access is provided to the basement floor, which is 10 ft. high and of considerable dimensions. On the first floor there are five museums and three Art galleries. The former are on the Shire Hall side, and the Art galleries are over the news room. The central and largest museum gallery is 45½ ft. by 22 ft., and the central Art gallery is of the same dimensions. At the corner of Foregate Street and Taylor's Lane is a circular tower, with a staircase to the roof. Between this block and the schools block is an open space which will allow of future extension of the building. The schools block accommodates the Art, science, and technical schools. The science school on the ground floor provides a commodious lecture theatre, stores, photographic dark room, &c., well-arranged cloak-rooms, laboratory, balance-room, and preparation-room. Beneath these rooms are a long range of north-lighted workshops for the technical classes, with cooking, plumbing, and other apparatus, and lavatories. The first floor is devoted to the Art school. The elementary room, which has a top light, is 50 ft. by 22 ft., and on the other side is an antique room 60 ft. by 21 ft. On this floor are also a painting-room, modelling-room, designing-room, master's-room, cloak-rooms, and conservatory. The two blocks are connected by a subway. The work has been carried out by Messrs. Joseph Wood and Sons.

Correspondence.

"MERE TOIL AND DRUDGERY."

To the Editor of THE BUILDERS' JOURNAL.

SIR,—In the *Builders' Journal* for September 23rd, there appears an article on "Wrought-iron Work," in which I was greatly interested, and in which occurs the following:—"But in one thing we fall lamentably below the work of our forefathers. We do not seem able to set up a beautiful screen or gate. . . . Nothing is so remarkable in the older work as the chasteness of the design, and. . . . These (extinct Sussex ironworks—from which came beautiful gates and screens) were chiefly conducted on. . . . a very small scale, and by very old-fashioned methods, but this order of things is that which is most favourable to true artistic work." (I entirely agree—the curse of to-day is the insane endeavour to *produce*—no matter what! so long as it sells! Hence our giant factories and subdivisions of trades.)

Now, Sir, it chances that a short time ago I sent a letter to a certain weekly paper, on a subject to which the above quotations are pertinent: the letter was occasioned by a member of the staff (as I suppose) writing thus—I quote from memory: "Pleasure in one's work is the greatest of all earthly blessings and one of the greatest of earthly joys, and this is a fact which all classes ought to keep constantly in view. . . Working men are in the habit of looking upon their work as mere toil and drudgery. If they would only pursue their work with the same ardour as when pursuing their pleasure," and so on. He also states that of course "untimely hours," "too long hours," and "mistakes in selection of calling," would militate against a man's finding pleasure in his daily occupation.

In my letter I stated convictions which I strongly hold, that, with few exceptions, work *is* to the artisan (and other working men) most decidedly *mere toil* and *drudgery*: that the employer's main object is to get the utmost fraction of result in the shortest possible time: that the workman's one aim is to "get through" (no time for "pleasure"—no time for loving labours or any of that "d——d foolishness")—yes, "get through" as much as will be accepted (grudgingly) by the employer as a day's work, or passed over by the foreman without remark. (There is no such word as "encouragement" in the artisan's dictionary! All he can hope for—and he thinks himself "well in" with even such a miserable pittance—is to escape censure!) I also stated that he has hurled at him such words as "soulless," "mechanical," "wooden," "sordid," "unthinking block," &c., and, also, that he would not have been worthy to tie the latchets of the sandals of the old-world artisan who reared the monasteries, for instance, or who wrought their teeming fancies into the chaste and graceful curves of the old wrought-iron work.

I contended—and I strongly hold that the workman of to-day is but what his employer requires him to be—if he is mechanical, he is but what the *deus ex machina* pays him to be—that he dare not deviate one inch from what is "laid" down for him; that any little characteristic touches, anything of himself, put into his work, would be an unheard-of innovation to be utterly frowned down (to say the least!) but, that he is as capable of undertaking works of love and loveliness as ever man was, able to do anything that has been done of men. His capabilities in this connection may be latent—but that word does not express the truth—his powers are latent only in the sense that they are not called upon to operate; they *are* there, all the same. If grown a little rusty—it is the employer who has left them uncared for, for reasons not altogether unconnected with the health of his (the employer's, of course) pocket! I also said:—"What would the monkish workman—labouring with an infinitude of pains, and wreathing his very soul into the lovely creations of his hands—what would he have thought of the brutal hint, so delicately expressed, that his work 'needed some salt!'—and this is only one of the stereotyped phrases *pour le encourageur* of the modern 'drudge.' And that if his (the monk's) quaint personality could be set down in a shipyard, studio, shop, or building to-day, his employer would not 'keep him' a single hour, but would gruffly tell him to take himself off as a useless 'waster!'"

Now, Sir, would it be too much to ask you to give your readers the benefit of your views—yea, more—your convictions *re* these matters—as it is a subject of general interest?

And perhaps readers themselves will contribute their quota to so pertinent a subject.

And now, Sir, as we Northumbrians say:—"Wishin' yor pyepor ivvory success, hinney!"

I beg to sign myself,

"GEORDIE."

RICHARD CARPENTER'S FIRST CHURCH.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—Your issue of September 23rd contains an interesting notice of the repairs effected recently at St. Stephen's, Birmingham, but in the account the name of the Church's Architect is not given. May I be permitted to remark that St. Stephen's was the first Church built by one who may be truly called the regenerator of old English Church Architecture—Richard Carpenter, whose death in 1855 at the comparatively early age of 43, deprived the Church of England of one of her most enthusiastic ecclesiologists? Unfortunately, we Londoners can only point to one Church from the designs of this very remarkable man—St. Mary Magdalen, Munster Square, a structure on the "motif" of the great Augustinian Church near Broad Street and evincing in its every detail the impress of an Architect who thoroughly understood the grammar of his Art. For the period of its erection (1839-1841) St. Stephen's, Birmingham, is a marvellous production; indeed, if we except St Giles's, Camberwell, which was in hand from Scott's plans about the same time, certainly nothing so good as this was raised contemporaneously in the kingdom, for sobriety of treatment and truthfulness of design. Another, and somewhat later Birmingham Church (St. Andrew's), is also from Carpenter's designs, and, as do all his works, exhibits a thorough acquaintance with, and a desire to emulate, our old English parochial Architecture of the Midland Counties—notably Northants and Rutland.

The well-known Church of St. Paul, Brighton, and All Saints, in the same town, are Carpenter's, besides a host of others in various towns and villages of the kingdom; St. Nicholas College, Lancing, and St. John's College, Hurstpierpoint, being among his most extensive works. Whether Carpenter would have developed a taste for those foreign forms which set in shortly after his death it is not possible to say; certainly his works give no such indications. He was eminently English, in which respect his name stands side by side with that of an Architect who has but lately passed away from us—another early ecclesiologist, and labourer in the same field—Henry Woodyer.

With apologies for the length of this communication.

Yours, &c.,

THE AUTHOR OF "LONDON CHURCHES," &c.

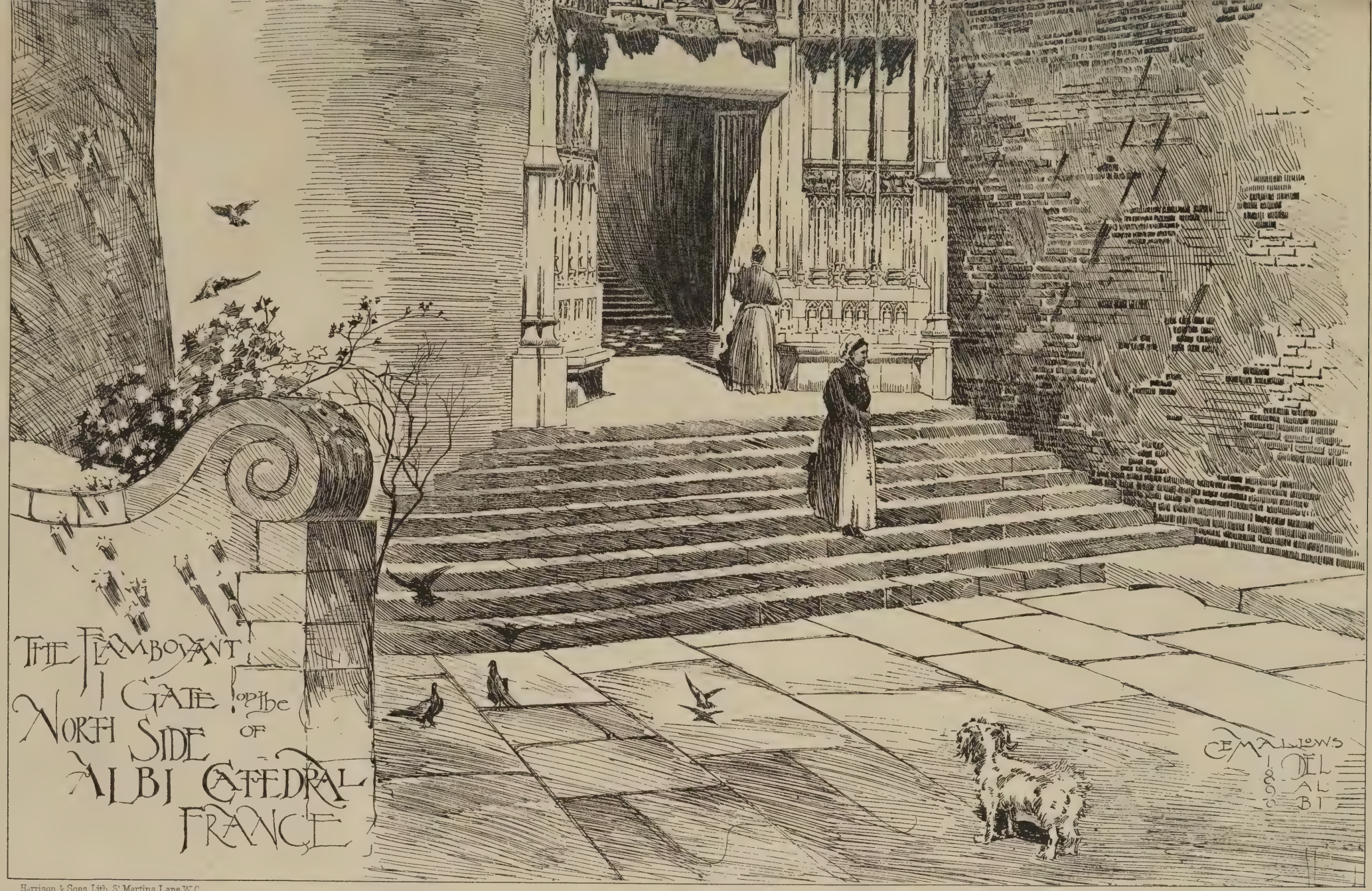
MR. SIDNEY À COURT has removed from 19, Old Queen Street, S.W., to Artillery Mansions, 75, Victoria Street, S.W., to which building he is Consulting Engineer.

AT Worcester a new Railway Mission Hall was recently opened in East Street Arboretum, by Miss Benyon. The building has been erected at a cost of £1,000, and is arranged to seat 450 persons.

THE memorial stone of St. David's Episcopal Church, Govanhill, Glasgow, has been laid by Mr. Gavin Stewart. The building, which is situated in Aitkenhead Road, will accommodate about 300 presons.

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THE FLAMBOYANT GATE ON THE NORTH SIDE OF ALBI CATHEDRAL, FRANCE, BY C. E. MALLOWS.

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The Builders' Journal

AND

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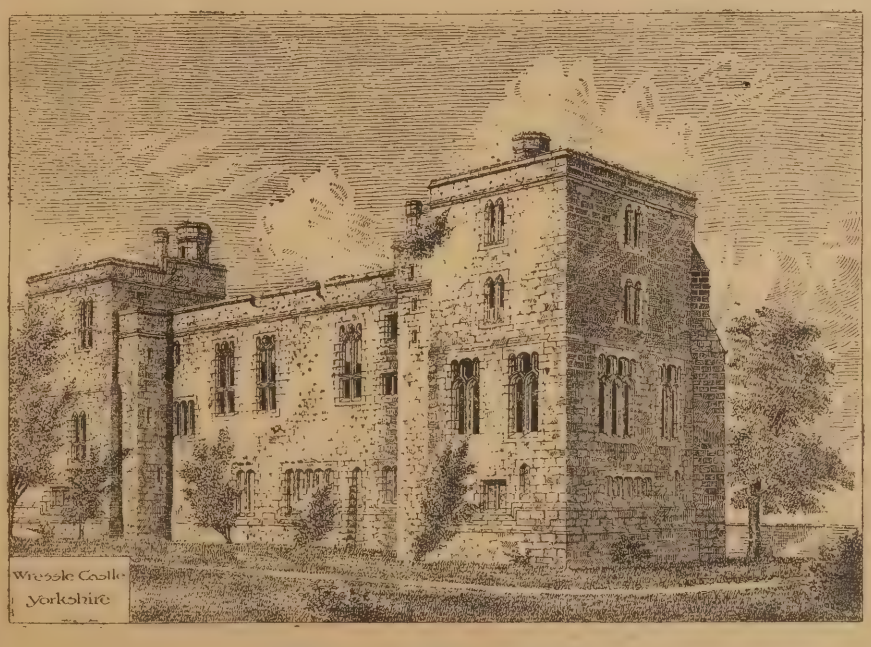
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Influences. Elsewhere, representatives of this Journal have noticed in detail several of the more noteworthy or pleasing exhibits among the Arts and Crafts on view at the New Gallery. But when we consider that close upon 700 exhibits attract (or distract) attention, exclusive of the drawings and pictures (also on view) of the late Ford Madox Brown, it will be obvious that the bulk of so much work cannot be of the highest grade. The average is better, undoubtedly; of fuller promise, of ampler suggestion. The field is wide enough, ranging, decoratively, from the mansion to the wayside cottage; from the swinging signs of country hostelries (which we hope to see revived: the signs as well as the hostelries!) to the candelabra of the open-roofed homes the *nouveaux riche* are tardily affecting. But with all due deference to Influences we do not pretend to admiration for Schools, and there is, we think, too much disposition shown for the paths Morris and Crane have securely trod. The Influence of Sir Edward Burne-Jones the more openly produces the negative result, though the growth of the Burne-Jones Type is one of the most remarkable of Renascences. Everywhere, it has been remarked, you see Burne-Jones women. And, whereas, a decade ago they seemed the very mythology of our dreams, now they appear to us—almost any day in Bond Street, *outside* the Galleries—in flesh and blood. The development is singular, but to be accounted for, we believe, as much on the ground of the penetration of the poetry of Design to the better class homes of the land as on the direct appeal of Sir Edward Burne-Jones's pictures. The realisation of the expected is to be the lot of life, even in Art, and even from such men as the three we have mentioned. Morris is the Morris of the earlier Arts and Crafts at the present Exhibition, and, once again, we must confess to some sense of disappointment at the product of the Kelmscott Press. The type is still grey, lacking in boldness and force. Mr. Crane's quaint and chivalrous drawings for the "Faerie Queen" demonstrate the ever-evident facility of his Celtic temperament and the same sureness of hand, the same element of Romance, and yet, somehow, they lack the subtler poetry of the poem itself; if anything they are too "mailed" and "girdled." Sir Edward's cartoons but prove conclusively the lankier treatment of his imitators, who get his sparseness of drawing and subduedness of colour without his Arthurian atmosphere and beauty of sentiment. There are sudden and somewhat anti-climacteric juxtapositions, moreover, which at once amuse and annoy, as when one passes from pictures to bed-spreads. The exhibits require more isolation and freer space, and it is their misfortune that they cannot be surrounded by the right environment. Pictures are painted to be hung, but fenders are a contradiction—to use a homely simile—where there is no fire. But if you range with a love for such things through these exhibits you are certain to strike many bits of Design which charm, of Craft which captivate. It is the finest and most encouraging factor in the progress of Art that nothing is now considered too mean, too modest, or too simple for the expression of beauty. One may gaze up, still, at the rose, but not forget the violet underfoot. The penetration of Domestic England has commenced, and when and where it will cease no one can tell. Perhaps it will never relinquish its persistence until, at last, the firesides of the humblest have had cast around them the curling incenses of simple, sincere, and sanctified homes. There are many Butts which spell nothing; but the gradual growth of little things towards Beauty is as possible and as certain—given the right Influences—as the green grass of every spring. Whatever we are upon in Architecture, Sculpture, Painting, we are once again in the springtime of Craft—a recrudescence in land long lain fallow.



DRAWN BY W. EATON, A.R.I.B.A.

OVERPOPULATED!

WANT OF ARTISANS' DWELLINGS AT COVENTRY.

ACCORDING to the Medical Officer (Dr. Fenton), there are upwards of 3,000 insanitary houses in Coventry. Within the last week or two meetings have been held calling the attention of the authorities to the need for house accommodation for the working classes. The Medical Officer, who has long been alive to the gravity of the situation, has from time to time presented reports pointing out unhealthy overcrowding, and suggesting remedies, but until last week nothing has been done. The Corporation has now entered into a contract to sell a piece of land in Red Lane, at £400 per acre, for the erection of workmen's dwellings, and also referred to a Committee the question of providing a scheme for building tenements in blocks, to be let to those tenants who, for sanitary reasons, are rendered homeless by the action of the Council. On behalf of the Corporation it has been urged that they are not called upon to provide houses out of the rates for men who are in full employment and obtaining high wages. Until other houses have been provided there are members of the City Council who have declared that they would not vote for the demolition of the condemned property. The situation, therefore, is unique and interesting; it is to be hoped that it may not have a serious development.

THE OLD PART OF THE TOWN

is the insanitary part. There are, according to Dr. Fenton, at least 3,000 houses which are unwholesome, for the reason that light and air cannot be admitted to them. They are crowded together, the ceilings are low, the too small doors and windows are situated on one side of the house only, and, besides, many of the houses are so sub-divided, in order to increase the sleeping accommodation, that some of the rooms have neither windows, fireplaces, nor other mode of ventilation, and at night are "like closed boxes." Owing to the surrounding conditions improvement is generally impossible, while to close any number of them in the absence of better would only be to increase the trouble. Since March last plans have been passed for the erection of 350 houses suitable for artisans, and another 100 applications are being considered, but at the present rate of progress some time must elapse before any impression is made. In the opinion of the Borough Surveyor there is land available for an increase in the population of 7,500, assuming prices could be arranged, and the various sites built upon. Not only is the town overcrowded at present, but in every direction

NEW FACTORIES ARE BEING BUILT

and others extended to provide employment for additional men. Close to the station the New Beeston Company is erecting a building covering 7 acres, which, it is stated, will find employment for about a thousand hands. Other new buildings are either in progress or contemplated by J. K. Starley and Company (which, when finished, will probably be the largest in the district), Allard and Company, the Triumph Cycle Company, and extensions of existing premises are being made by the Humber Company, the Rudge-Whitworth, Coventry Machinist Company, and the Sparkbrook Machinist Company, besides premises for several new motor-car companies that have been formed. Unless prompt measures are taken, therefore, the last state of Coventry bids fair to be worse than the first. Coventry is the Mecca of bricklayers and carpenters. Large as is the army of these artisans already in the city, many others could be found employment, and one reason for the lull in house-building operations is said to be that the necessary workmen cannot be obtained. But if they could, they could not be guaranteed lodging accommodation. The average growth of houses during the past four years, after accounting for those demolished, is about 150 per annum, so that it would take nearly seven years for the erection of 1,000 houses. Private enterprise is not likely to be able to overtake the difficulty, and the Corporation have refused to put into force the provisions of the

ARTISANS' DWELLINGS ACTS.

According to the Borough Surveyor, there is plenty of land available for building purposes, but he sees no reason why one section of the community should live at the expense of the other. The working men, who could well afford to pay 6*s.* or 7*s.* a week, are demanding houses at rents as low as 3*s.* 6*d.* and 4*s.* There are about 12,300 inhabited houses in Coventry, and the population is upwards of 60,000. At midsummer last year it was 56,000, in 1894 55,300, 1893 54,700, 1892 54,000, and 1891 52,720. The rateable value is £184,000; in 1891 it was £151,646, in 1886 £125,592, and in 1881 £122,914. Amongst the other difficulties incident to the extraordinary increase in the population is the inadequacy of the gas supply. The consumption has increased by 35,703,000 cubic feet during the half-year ended September 30 last as compared with the corresponding half of the previous year. In consequence of the increase it is proposed to lay down a water-gas plant, at a cost of £7,000. There has already been secured a second source of water for the public supply; and a scheme for dealing with the sewage of the city, which will involve a cost of about £100,000, is awaiting the assent of the Local Government Board.

KEYSTONES.

BOLTON is about to spend £30,000 on the extension of its electric-light works and plant.

THE foundation stone of a new fire station in Kirkley was recently laid on the site on Colville-road. The builder is Mr. G. W. Beckett.

IT is stated that the fortune left by Sir John Millais will approach a quarter of a million, and that the average sum received by him for the 300 pictures he painted was £1,000.

THE Hoylake and West Kirby District Council is in the happy position of having more money than it knows how to spend, and so it has resolved to make application for powers to light the district by electricity.

THE site recommended for the new Edinburgh Town Hall is in Castle Terrace, in an area embraced within Castle Terrace, Spittal Street, Grindlay Street, and Cornwall Street. It is expected to cost £60,000.

AT a recent meeting of the Barnsley School Board, Mr. R. D. Maddison presiding, reports were confirmed approving loans to the amount of £7,324 for school enlargement and alteration, and the purchase of property for offices and evening schools.

MESSRS. CRISP, OATLEY, AND SKINNER, Architects, of 31, Clare Street, Bristol, have been awarded the first premium in the open competition plans for the Asylum at Warlingham, for the Borough of Croydon. Designs were received from 18 competitors.

HALE Magna Church, near Sleaford, is approaching completion, and will be reopened by the Bishop of the diocese on November 19th. Nearly £1,500 has already been raised towards the work of restoration, and about another £200 is required to complete it.

PLANS are being prepared for the construction of a new street in the heart of Bradford, namely, from Market Street, at a point near the bottom of Russell Street, to Square Road. The new thoroughfare will enter the square at a point near the Old Assembly Rooms and the adjoining wool warehouse, and will be a great improvement on Woolshops as a route to and from the railway station.

ARTISTIC talent is highly appreciated at the Abyssinian Court. Those Italian prisoners who can use pencil or camera are very much better off than their less gifted comrades, as the Queen gives them her patronage. She is employing numerous officers and soldiers to paint the walls of her new palace, where they live in luxury. There are still 1,500 Italians in Menelek's power, and the lot of the unskilled men is wretched enough.

AT Trieste, in 1811, a terrible explosion took place in the harbour, the causes of which have never been explained. Much loss of life and property was caused, and the "Danae," a French frigate, was sunk. The divers soon ascertained the position of the hull, but all efforts to raise it have since been vain. The vessel contains £120,000 in gold, and the valuable jewels of a French prince s. The divers have succeeded in laying bare a part of the ship's skeleton, and they hope to raise it with a crane.

In consequence of the unprecedented demand for Specimens the Publisher regrets they are now out of print, and he would be obliged if all Architects possessing copies, and having thus been enabled to see the Specimen, would return such as may be spared. The postage will be refunded.

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ARTS AND CRAFTS
AT THE
NEW GALLERY.

[BY OUR SPECIAL REPRESENTATIVE.]

WITH SKETCHES BY E. A. RICKARDS.

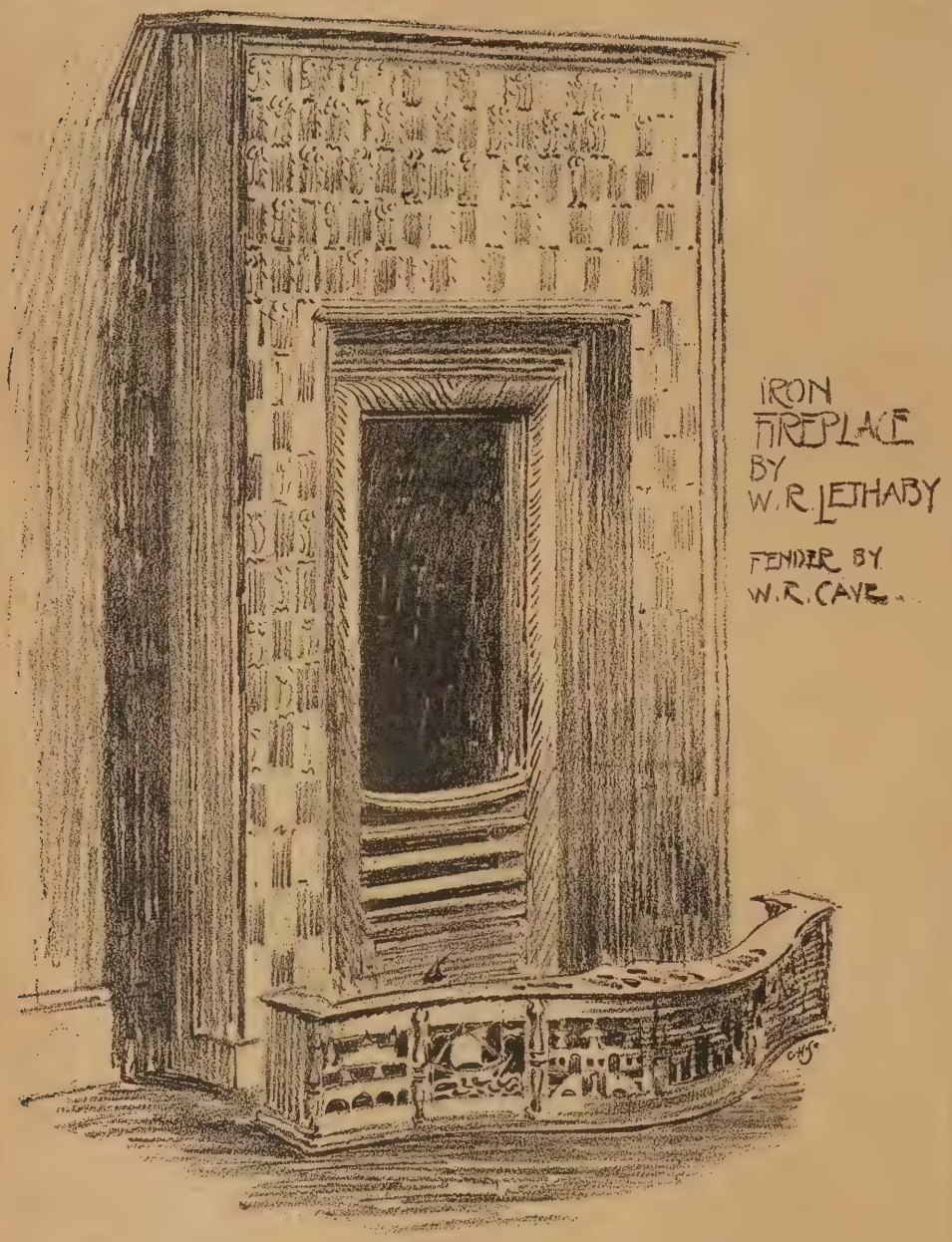
FIRST NOTICE.

IF, as Mr. Lethaby told us in his Lecture at Bolt Court last October, our designers should "throw away the burden of the thousand years dead palmettes, eggs and tongues, and mouldings, all the trappings of the styles improperly called revived," the authors of the majority of the exhibits at the Fifth Arts and Crafts Exhibition have this element of success, at least, in their efforts, especially as regards the larger and more Architectural of the works now to be seen at the New Gallery. We are not far from the mark in saying that there is scarcely a traditional feature or moulding evident in the four or five fireplaces and other larger pieces of furniture there. If this had led to results equal to the two principal exhibits of Mr. Lethaby, *i.e.*, the larger fireplace at the end of the West Gallery and the smaller, in one corner of the Central Hall, such a maxim might well serve, but except in these two instances the results are hardly inspiring. Yet they are not always discouraging, for one returns, after a preliminary run round, which may have resulted in much disappointment, only to discover that, after all, an original idea, in some cases, still in embryo, has been underlying an apparent absurdity. An occasional visitor to the Gallery cannot fail to notice the difficulty that the "ordinary person" (we mean the uninitiated) has in recognising various articles of a useful nature which they have always associated with some more or less definite form. This in itself goes for little enough, in view of the many abortions in the shape of household furniture we have, most of us, become almost reconciled to; but a piano, for instance, made to open in tryptich fashion has some possibilities of humour, in spite of its undeniably decorative and interesting effect. A too ardent swain might find himself suddenly precipitated if placing much reliance on the support of one of its opening leaves; or, again, a lectern branching into two great serpentining arms, each bearing a very thick and stunted candle, is apt to inspire any emotion other than the rightful one. The affectation of archaic forms displayed in inlay and fretwork has its ridiculous side, even to those of us who have not come upon it suddenly and for the first time.

Another school of designers, who have relied upon the extreme simplicity of their conceptions coupled with the most exquisite and reverent workmanship, do not by any means escape ridicule when they happen to be noticed at all by visitors of an unsympathetic turn. No doubt to these persons the words of the late President, so often quoted during the past week, will occur, and to their intelligence with perfect fitness:

"Dream of dreams, born out of my due time,"





but, to our thinking, these examples of restraint are far from being an anachronism, and rather suggest a real awakening to the possibilities of our own age and its facilities.

The fireplaces of Mr. Lethaby's, made by Farmer and Brindley, of which we have been privileged to give illustrations, are exactly what he has led us to expect by his designs in former exhibitions. We venture to think, however, he has surpassed even himself in the larger one of the two. At the first glance one is rather inclined to disagree with the juxtaposition of the dark green marble and the onyx, but, in reality, the balance given by the two spots of darker colour above the shelf is sufficient to justify such contrasts. The accessories, if playful, are thoroughly in keeping. Mr. Lethaby has evidently allowed himself a little license in these. The two mock parrots above the firedogs, of copper and coloured enamels, are the nearest approach to realism we remember to have seen of his. They are pleasant notes of colour quite helpful to the general scheme. The fender by Mr. Cobden-Sanderson might be owned by the same author, so fitting is its character.

The smaller (474) fireplace or grate exhibited by the Portland Metal Works is of much the same character as the grate to the larger work, its principal decoration being the diagonal flutings in small reversed lengths. The fender here is equally, or perhaps more so, in keeping. It is by Mr. Walter Cave.

There are two fireplaces in the North Gallery, one by Mr. Harrison Townsend, remarkable as being about the largest exhibit in the rooms. It has a decided suggestion of the Indian Courts at South Kensington, in spite of Mr. Frampton's carving, which is everywhere grouped into flat surfaces above considerable undercutting. The carving above the grate is so hidden from light at present that one can hardly gauge its effect. A note explains that in the position of the fireplace eventually, considerable side light will be thrown upon this. As far as one can judge at present, it looks terribly out of scale with the rest. The seats are rather a new departure, but being entirely open at the backs, are suggestive of draughts; certainly they do not look cosy. To our mind this is the least successful of the chimney-pieces, though the effect may be very different if it be at any time contained between two side walls and a ceiling. That of Mr. Voysey's, executed by the Portland Metal Works, hardly shows him at his best, though the proportions are exceedingly restful. The four grouped spindle-like balusters between the side posts and overhanging cornice have a decidedly unstable effect. The more so as the posts under are quite unattached.

The bedroom chair (237) close by, of which we give a sketch, is exceedingly quaint. There is an air of the sick-room about it. The side, unbroken by panels of any kind, is hardly a wood treatment. The enamelling also suggests metal.

The extremely Architectural character of Mr. Frampton's screen (293), executed by himself, rather emphasises the lack of this quality in Mr. Townsend's fireplace. Indeed, more than in any picture exhibition do the various objects react on one another, and this, in spite of the well-meant and directed efforts of the Committee to give each its best place and most realistic position. We can imagine a group, though, formed of Mr. Lethaby's fireplace, Mr. Frampton's screen, Mr. Begg's music commode (291) in Italian walnut, and one or two other pieces of the more restrained order.

The carving of Mr. H. Wilson's choir-stalls (251), executed by Charles Lask and Company, takes the critic by storm, but upon further study of these bench ends, there seems to be a lack of Architectural feeling that should be the foundation of all good work of this kind. This will be more apparent when they are fixed in their ultimate position, we imagine. However, it would be difficult to light upon anything more fertile in invention than these carvings, and we trust that little of their effect will be lost in their future resting-place. Mr. Ernest Barnsley's music chest and work-box (203) as a specimen of modern workmanship is second to none in the exhibition. The design is of the severest kind. Mr. Charles Spooner's small mahogany cabinet (197) and oak table (196), Mr. Ashbee's music cabinet (261), although evidently at once the work of different men, come within the same category. They are models of simple furniture, and could all be lived with; even Mr. Voysey himself in his simplicity is sometimes affected, witness his delightful bedroom chair; but work like the above never disturbs.

There is a simple and inviting-looking chair in this room by Mr. Walter Cave (296), but that by Mr. W. Jarvis close by would certainly have to be taken to pieces before being easily dusted, which would be hardly convenient. A book-case cabinet in oak (308) by Mr. G. Jack, both repels and attracts. The glazing bars are thick and curiously ungainly; but one is captivated by the exceedingly beautiful detail and carving in most of its parts, the lower portion especially. It is moulded in the manner of Mr. Philip Webb.

An oak chest (328) designed and exhibited by Mr. R. S. Lorimer, of Edinburgh, with the quaint panel formed by wood inlays of colours, varying from pink to nearly black, is a marvel of ingenuity. The drawing is wonderful when one thinks of the material, and much care must have been expended on the selection of the different woods.

The bronze lectern (554), designed by Mr. H. Wilson, and executed by himself with Mr. F. W. Pomeroy, is of saddle-back pattern with a figure of the Virgin between the book-rest and square base, to which are kneeling two figures. We wish the small figures at the angles of the base had been replaced by some other feature. The difference in their scale is slightly disturbing. It is exceedingly graceful though, on the whole, and beautifully modelled. One cannot help comparing its effect with that by Mr. Bainbridge Reynolds in the North Gallery. Whatever merit in detail this possesses is lost in a distant view, the line of the arms being awkward and ungainly. The arms coming out of the centre of the cup bearing the candle above, gives the cup the appearance of sliding off. The comparatively small wood lectern by Mr. Ashbee in the Central Hall, though a trifle primitive in appearance, is of a quaint

outline. The gilding of the balls at the feet gives a tinsel-like effect.

Occupying a considerable amount of wall-space in the Central Hall are the iron gates made by Mr. Thomas Elsley and designed by Mr. Reginald T. Blomfield. The design is late seventeenth century in style and a trifle ornate. Excellent the workmanship undoubtedly is. The circular balusters in the gates, the pilasters, and the classic caps are of forged iron, while the lamps are of hammered copper. The central gates only are exhibited, but the total width of the gates will be 27 ft. and the height 18 ft. The illustration is too small to do justice to the work.

There are several pieces of furniture in the West Gallery, though the walls are principally hung with cartoons for stained glass. In a rather out-of-the-way corner there is to be seen an extremely interesting exhibit, consisting of a model and photographs from the finished work of a private Chapel, Douglas Castle, Isle of Man. Mr. H. Wilson is the Architect. Close by are Mr. C. Whall's studies for the detail of decoration to the ceiling. In the photos the suddenness between the blank wall and elaborate frieze and ceiling has a rather harsh effect. The benches are evidently not the work of Mr. Wilson. A similar exhibit is to be found in the Entrance Hall, illustrating the decoration of the Apse to the Lady Chapel of St. Agatha, Portsmouth, Mr. Henry Ball, Architect. Mr. Heywood Sumner is responsible for the decoration. The effect in the photograph is most religious, and the colour scheme can be guessed from the large cartoon of the tympanum of the Chancel Arch which covers the wall of the side of the gallery above.

Mr. G. St. Morris cabinet (129), although perhaps over moulded, is quaint without being archaic; the treatment of the angles and feet is reminiscent of some of the best French work of the eighteenth century, although perhaps the author would hardly admit it. It is made by E. S. Ratcliffe and J. Verney, of Barnstaple.

In our further article next week, we hope to publish other sketches, necessarily crowded out for want of space in this number, together with some notices of the many interesting specimens of metal work, &c., wall-papers, and hangings.

(To be continued.)

THE JUBILEE OF THE ARCHITECTURAL ASSOCIATION.

The President's Opening Address.

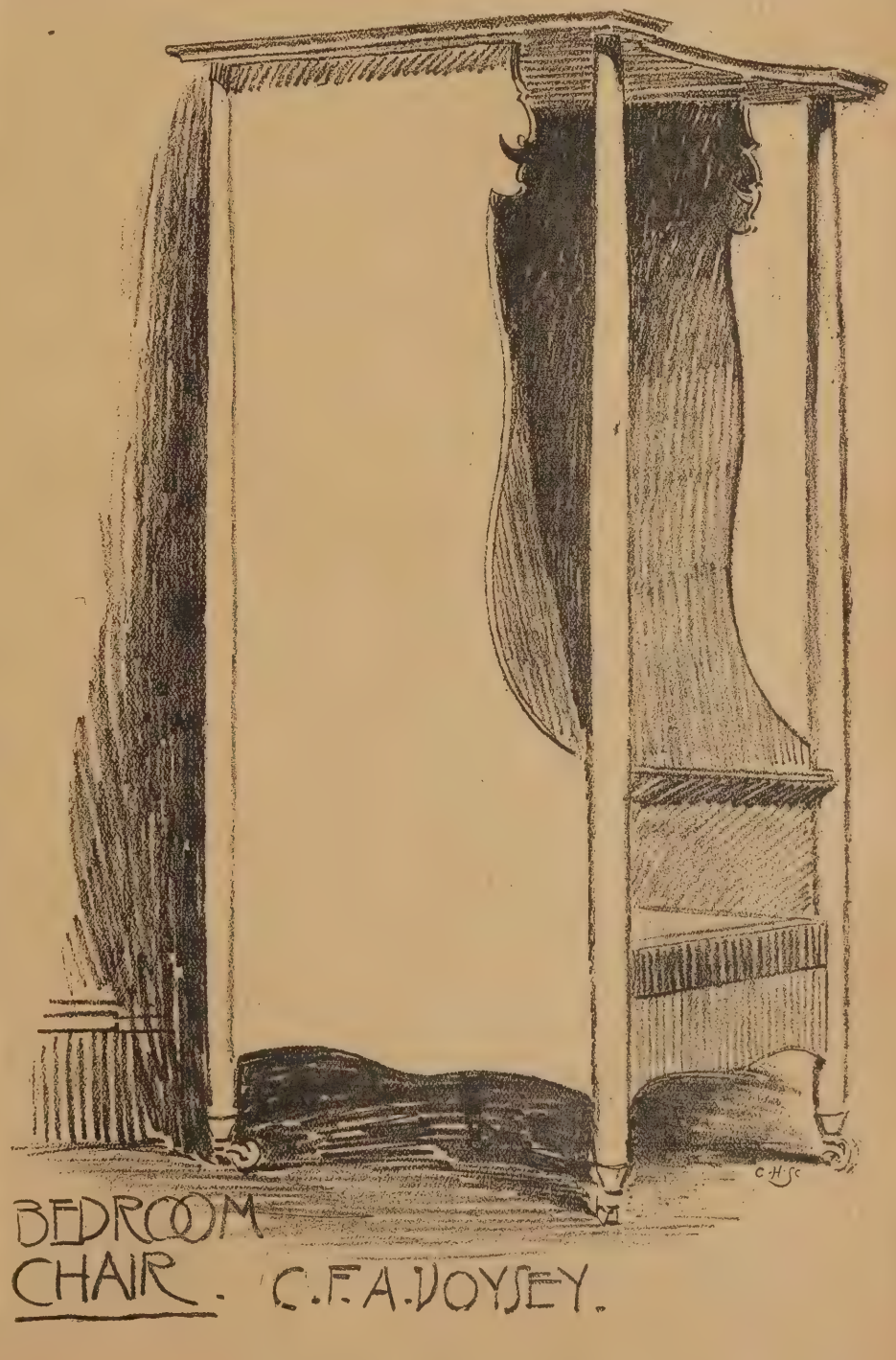
IN opening the fiftieth session, Mr. Beresford Pite, the President, said:—"All expression of Architecture is attained in a co-operation of workers in building and decoration, and though its Art is imaginative, and consists in the conception by a mind of some hitherto unrevealed harmony, its ideals, dreams though they be, and mere castles in the air, cannot become facts, embodied in diagram, and erected upon the earth, until crystallised, moulded, and chastened by contact and friction with many other ideas, precedents, and workers, sometimes encouraging to the development of the original idea, but more often difficult—though helpful—and the Architect learns how dependent his Art is upon association for existence and life. Within the legitimate Arts it does not appear possible that the higher character suffers by association with the lower. There is a mutual recognition of artistic power and a magnetism in harmonious beauty that, to some extent at least, attracts and elevates imagination and encourages development. To those conscious of some measure of attainment and power the Association says unite; contact with your fellows cannot harm or dissipate your talents, it may perchance affect it with some beneficent emulation, and closer acquaintance increase esteem of your brethren, surely an end not to be despised in itself, while the light of your genius may give, as to tinder, a spark of living motive and Art to many associated in the earnest wish to obtain advancement in their Art, such as is in your power to give. Far from suffering, you will gain a magnanimous enthusiasm for the

Advancement of Architecture

at the hands of all her professors. It is, therefore, in the general interest of the Art of our time that these sessions are held, and that the fellowship of our members should be maintained with the widest possible freedom of entry and union, and jealously guarded against the accretion of any other qualification than that of the simple desire to exercise the Art of Architecture. May it thus continue to be increasingly recognised that this society welcomes all Architects, both students and masters, as members. It is a meeting place for the young and inexperienced, with the matured and well practised professor, for the designer of ideal beauty, with the surveyor of patient humdrum building, without selection, without distinctions, even without qualifications. The maintenance of this universal character in our membership happily ensures freedom from electoral or professional controversy. A constitution which would include all Architects cannot adopt any policy which tends to divide them against themselves, and unavoidable though differences of opinion may be, and necessary as are principle and discipline both in theory and practice, inevitably and of necessity they must not disturb us, who exist apart from all relations which would affect and injure our primal object of mutual advantage and friendship, in the pursuit of our Art. Leaving obvious and necessary professional regulation to those charged with such interests, our own course and functions will undoubtedly lead to the more important and practical issue of a continually elevated standard of artistic and scientific attainment, and a warmer and more natural sense of

Brotherhood within our Ranks.

Let us determine that nothing shall alter our character, narrow our sympathies towards our fellows, or detract from the useful influence that this brotherly association of Architects of all views and attainments has exercised upon our Art. The energies of University and of King's College, the kindly feeling of whose Professors we are not slow to recognise, in their classes and arrangements for Architectural students are developing yearly, renewing their youth after our pattern, but aided by substantial resources and financial aid from the Carpenters' Company, Architectural classes and drawing schools in con-



nexion with polytechnics and technical institutes also increase and obtain shares of the large sum placed by the Government at the disposal of the London County Council for the furtherance of technical education. Towards all who join any of these bodies with the intention of fitting themselves for Architectural practice, we extend a welcoming but not competing hand. We are now enabled to add to the educational forces at the disposal of the Architectural student in London the programmes of the Art Students' Guild and of the London County Council Central School of Arts and Crafts—both of which should be heartily welcomed by all members of the Association, offering original and definite advantages not to be otherwise attained, and indicating the direction of an advance to new and

More thorough Training

in real Architectural Design. It is a matter of sincere congratulation that a student is no longer bound to the mere pedantry of archæological revivals for new motives in design, and that there are not lacking leaders and teachers having insight into the value of the decorative crafts to the higher and decorative crafts upon an admirable plan. The Art Students' Guild is equally a sign of the same movement, and will afford a limited number of students, in the various crafts that comprise the Art Workers' Guild, facilities for meeting, discussing, exhibiting, and working together, in much the same way as their seniors; but we will not predict that the vitality of the elder will suffer by its maintenance of the younger branch, as we have observed in similar bodies. An important suggestion is made in the programme of the School of Arts and Crafts as to the provision of a special course of lectures in the mechanics of construction, including the application of iron and steel to builder's work – mainly addressed at first to the eye and general reason, avoiding mathematics until main principles are fairly understood, evidently contemplating a much broader treatment of the constructive elements of building than has yet been attempted. Of all such privileges the Architectural student should take full advantage; they deal with the essence of his constructive Art, and at some time or other in his course, and not too late, they should be seriously attempted. Again, remember



AT THE ARTS AND CRAFTS EXHIBITION: IRON GATES DESIGNED BY REGINALD BLOMFIELD, MADE BY T. ELSLEY.

Architect, and enthusiastic as to the influence which he can exercise for good upon all workers in building materials as their Master Draughtsman. The County Council School of Arts and Crafts, which has become actual under the hands of Mr. W. R. Lethaby and Mr. G. Frampton, is the more important institution, and its programme includes practical instruction by craftsmen of proved capacity in stained glass textiles, wall-papers, and furniture, silversmith's work, moulding and casting in metals, with general modelling, drawing, and designing. Sculpture and ornament as applied to Architecture will be under the guidance of Mr. Roscoe Mullins, and Architecture under Mr. Halsey Ricardo. The advantage to the Architect of studying the crafts, which he usually in ignorance directs, is obvious enough, perhaps too obvious to be considered a necessary part of his scheme of education. This want has been felt in the classes of the Association for some time past, and steps have been recently taken in our School of Design and Handicraft to meet some portion of the need by obtaining access to works, as well as to workshop classes, for our members, and the new school, we agree, corresponds to the requirements of the Architectural student, and deals with the that the Architectural Association desires and urges its members to avail themselves unequivocally of every opportunity for improvement in Architectural perception and facility in execution, but ever and only with the broader and nobler end in view, that all such delightful spoil be brought home to the Association for the more widely extended benefit of its fellows. Passing from our relations to other educational bodies to the consideration of our own activities in the sessional programme and work of our classes, and taking the latter first, we find no apology necessary for the existence of any part of our course of study, each having a place among either the necessary or desirable equipments of an Architect. As to this there cannot well be any difference of view, and we are entitled to go further in declaring that all the studies upon which an Architectural student should enter, and the means of their profitable exercise in practical design, are afforded by the Association in its classes, studios, and

School of Design and Handicraft.

The Association classes provide, in the first place, for the subjects in which it is essential that an Architect should be proficient. These are the nature of building materials, building construction, elementary physics, geometry, hygiene, specifications, estimates, professional practice, and drawing. In the second place our classes provide for subjects which are desirable additions to an Architect's education, but which cannot be considered as essential to it. Generally speaking, indeed, as in a more logical sense, they are non-essential. These are the history of Architecture in several stages, land surveying, the history of features, mouldings, and ornament, quantity-surveying, modelling, water-colour drawing, ornament, sketching and measuring, and perspective. It is, however, impossible to regard a real Architectural education and training as capable of acquisition in classes and at lectures, and it may be suggested that the term education, in connection with Architecture in its current use, does not apply to the Art of Architecture at all, but to those subjects upon which reading and lecturing are required. Such of these as can be described as essential will be found to have relation to public health and order, and not to Architecture as a Fine Art, education in which having a different and, as yet, imperfectly understood character. Training in Architecture as a Fine Art is, so far as possible, undertaken in the practice of our studio, and more completely in our School of Design, which requires actual Architecture upon paper from the student, and submits it to the detailed criticism of recognised masters, as well as of fellow students. To this training the workshop demonstrations, the sketching and measuring, modelling, and many of the classes that we have described as "non-essential" properly and necessarily belong, as well as very much else, such as our organised visits to ancient and modern buildings and to works in progress, our sessional meetings, and other facilities for the culture, by observation and mutual criticism, of a sound enthusiasm for

Healthy Architecture.

This training cannot be stereotyped in a curriculum confined to one set of accomplished teachers, or summed up in an examination, and though an ideal training in the art of Architecture may not yet have been attained, we may claim as an association of earnest workers to have found and marked out an approach to this by no means Utopian goal, and to have made it available for all students

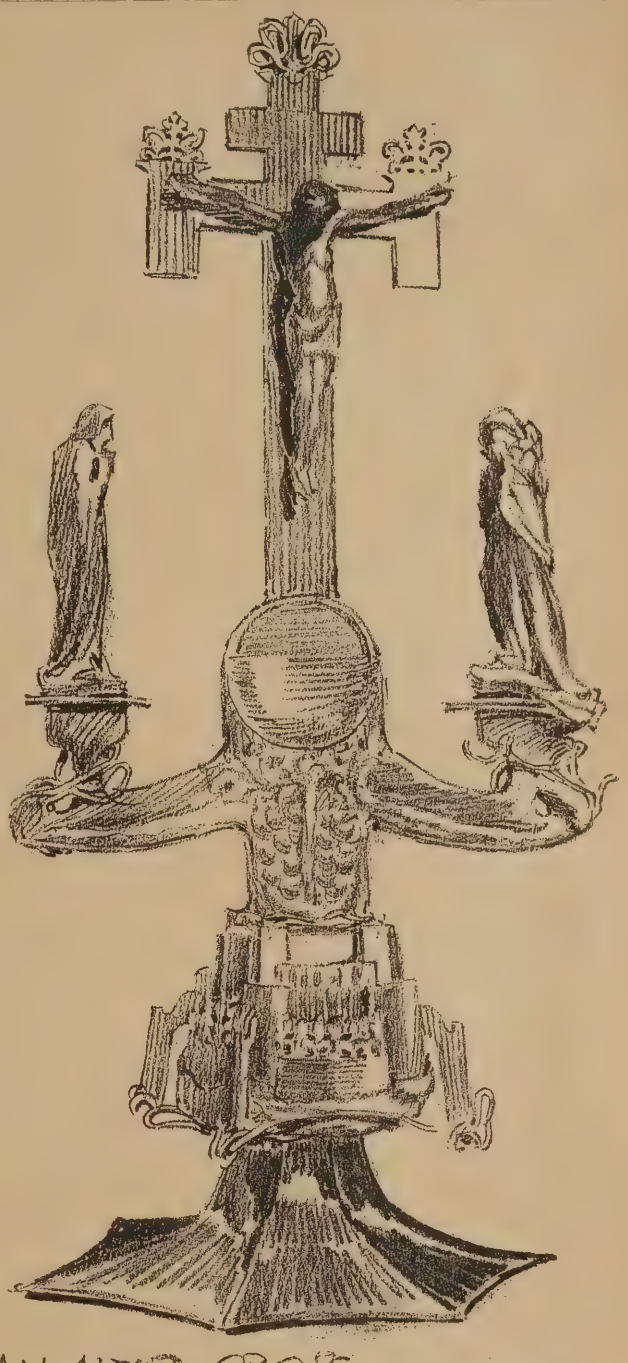
who desire to enter upon an Architectural course. This reversal of natural growth has produced, as might be expected, many solecisms and some more serious results. Among these are manifestly the dissociation of the teachers from the examiners, in the unsatisfactory conclusion of the class work to the former, and in the difficulties of the latter through inexperience as instructors. We may therefore be permitted to point out to the Council of the Institute, that the inclusion of some of our instructors as assistants to the Board of Examiners is desirable in the interests of sound education. We make this suggestion encouraged by the result of the representation we made last year to the Institute, when the dates of the examination were considerately rearranged to coincide with the conclusion of our courses of lectures and session. The connexion of the educational work of the Association with the Institute examinations is of necessity a close one, and good will result from the connexion becoming more definite and less inferential. A healthy mutual policy of thorough education in those subjects which the interests of the community as well as of the profession demand, must form the basis of an Architect's qualification to erect buildings for the use of his fellow-creatures, and cannot but be welcomed as reasonable by all Architects. This Association, with its past record and present work of Architectural training, has a wider scope of view than that of qualification for candidature of the senior body, but we cannot be unconscious of the tendeney that exists to use our membership and classes only as a means to the Institute Qualification. To make the examination a goal instead of an introduction to paths of Architectural knowledge, is an idea which has always been rightly and fully deprecated by the Institute as mischievous, and this needs not only additional emphasis, but some readjustment of the examination programme to deal effectively with the evil in the future. It will be manifestly impossible, even without discussing its propriety, to distend the scope of the examination in order to include the whole Art of Architecture as its subject, but nothing short of this will effect the inclusion of everything desired, within the focus of either the parent earnest for his son's diploma qualification, or of the individual or collective crammer. The alternative which I would venture to urge very earnestly, is to concentrate the examination upon those subjects, as to the essential character of which all Architects are unanimous, and which the voice of public opinion will acclaim as in the interest of the community, and to eliminate those other subjects which, however desirable as additions to a Designer's general knowledge and acquirements, are not of any public importance as necessary to a satisfactory discharge of an Architect's duties in erecting good building. It should be observed that, in the subjects that are indispensable, it is possible to obtain a satisfactory test of complete knowledge, as each is definite as to the point of qualification to be attained, while the omission of the non-essential portions will remove the practically illimitable and indefinite subjects of Architectural history, ornament and design upon which only a wide general reading and cultivated observation can afford any useful breadth of view. A hurried and incomplete study of any branch of knowledge is to be avoided, and especially of subjects universal in range, as Architectural history, or indefinite in measure, as the inventive and imaginative quality of design; while the mechanical practice of confining the student to one period or one subject, solely to achieve examination by sample, is unhealthy for the mind, and highly to be deprecated in the interests of an enlightened study of Architecture.

Examination

in the power of design of course can be achieved if undertaken under proper conditions, as also in the power of expressing ideas of design in drawings, but such conditions do not exist in the present programme of the Institute, and power of design cannot possibly be brought at all to a test apart from a freedom of mind and wide access to authorities; and is most alien to the atmosphere of an examination hall which indisposes and freezes the imagination, rather than aids it to warmth and vigour. We cannot agree, and may I add the personal opinion that the body of members of the Institute and of Architects at large, do not consent to anybody claiming the right of marking by examination the natural constitution of a mind as sufficiently imaginative and usefully inventive, to qualify the person mentioned to act as an Architect. This assumption has but to be stated to be condemned, and should be dismissed from the examinations, the limits of which should be reduced to a useful concentration upon the needful work of qualification for the proper direction of building works; and the Institute will then be in a position to attain to that wider representation of Architects to which it rightly aspires. The proper test of powers of design, however, is a subject not of any great complexity, apart from the examination question, as the continuous success of the Institute students' prize competitions and of the classes of design of this Association will show, in both of which cases every liberty and stimulating encouragement is given to the student to produce evidence of his best powers. The work of our educational classes, which is distinct from the general scheme of the Association, involves heavy expense beyond the receipts from the students' fees, which fees practically balance with the payments to the lecturers and instructors, the special educational and premises fund being charged with the cost of maintenance. It is to this purpose that the contribution of the general body of the Institute is applied, and without which the efficient working of the classes would be greatly hindered. Our members should realise that their ordinary subscriptions to the Association afford no help to its educational work, which is dependent, as already stated, upon

Special Contributions.

The spirit in which the instructors and lecturers have met the Committee in reducing the cost of the classes to the lowest possible limits deserves our heartiest appreciation, in addition to the special consideration due to our honorary lecturers of last session, Mr. Statham and Mr. Hart. The Association has a greater influence to exercise than that over the education and training of those about to practise Architecture. The greater part, by far, of its members do not belong to its classes, and are precluded from sharing in the benefits of its studio. In the exercise of its more ordinary and greater usefulness, the sessional meetings have a large share, all our members, through the assistance of the professional journals, can profit by the valuable information given, and by the interesting discussions at our meetings, the character of which has not only been maintained, but has risen during recent sessions. We may well be proud of providing the occasion for the wide publication of the large quantity of Architectural knowledge that a review of our sessional papers for past years displays, and as providing a platform for the expression of current Architectural thought we claim the support of all members of the profession. There is another function of considerable importance fulfilled in, what for want of a better phrase may be called, the social side of the Association's work. The benefits of pleasant intercourse with colleagues and brethren would not exist for London, and representatively for British Architects, but for the annual gatherings of our conversazione, soiree, and dinner, while the annual country excursion and the facilities that occur for smaller social gatherings in lyric and other clubs make up an important sum of really useful influences which we alone afford to Architects as fraternally united.



AT THE ARTS AND CRAFTS EXHIBITION.

A Suitable House

for all our labours we still hope for, but having now learnt how to wait and survive disappointment from within and without, we watch the more eagerly for the opportunity which shall embody our hopes of a proper and useful centre for our now rather disjointed machinery, assured that certain growth in all our branches will attend a transplanting from our now sadly pot-bound condition. As a means of awakening interest in Architecture, and, perhaps, as more readily accessible to the uninitiated, the perusal of biographies of Archi-

tects is to be recommended; the greater the hero and the wider his Art the better. The sympathetic interest of narrative may assist you to comprehend the existence of the esoteric fire which makes the artist fervent. Enthusiasm is itself highly infectious, and the memorials of such a man as Augustus Wilby Pugin, or of Sir George Gilbert Scott, are in their measure inspiring—while the study of the lives of the giants, of Wren, Inigo Jones, and the masters of the Renaissance, should provide an irresistible contagion. Avoid as unworthy the affectation that copies and simulates greatness; which sees only the mannerisms or insignificances of the artist, and knows little or nothing of that Art which has real life. This passing caution is a needful one, forgetfulness of it has already, in the course of a few years, led Architecture into dry-as-dust archæology, and promises yet to plunge us into an antithesis of affected nakedness. From mouldering old age to simpering idiocy seems as short a step in the passing fashions of day as in the decay of physical existence."

Mr. Aston Webb, in proposing the vote of thanks, said, in referring to the ability of the President, that many of the senior members would recollect a certain competition medal some years ago which was distinguished for its boldness of design and draughtsmanship, to the great surprise of the Association. Perhaps this surprise was somewhat increased when it was found that no less a one than Mr. Ewan Christian was amongst the competitors, and when it was inquired of him how it was that he was entirely in accord with the award, he explained that it was a thoroughly *practical* design, and would work. He said you might build it. And he was sure all present had benefited by the address. But there were one or two points in connexion with the Association which he should like to mention:—"We have been told to-night that there was a considerable *deficit* at the close of our last financial year, but I do not think that this matter is so very serious. I have not the least doubt that this Association will speedily wipe off the debt, and that the next balance sheet will show a surplus. With regard to the *premises* which you have also mentioned, I venture to say that you and your committee have adopted a very wise course in remaining where you are, even though you are, of course, greatly inconvenienced and hampered by the present arrangements. The time must come when a better building will be provided, possibly by the Association, possibly by both parties. I trust that the Association will persevere in their educational work, and that all those who are at present preparing themselves for an Architectural career will go on attending classes either here or elsewhere. It is my firm opinion that the funds should come more from the subscriptions than from the fees paid for the classes. The character of the discussions, &c., has considerably improved during the last session, and the attendance generally was greater than the year before. I venture to say that it seems to me most important that the lectures of the Architectural Association should be attended. For one thing, it seems hardly courteous not to attend, considering the great amount of trouble which has to be incurred by the lecturers in the preparation of their addresses, and besides, there are so few who do not derive *some* benefit and light from these lectures. In addition, the great advantages to be derived by a young man who is an earnest student cannot be underestimated, as he is enabled to meet in speech with others and discourse on subjects of interest before his fellow-students."

Mr. W. D. Caröe seconded the vote of thanks, and said it was absolutely necessary and essential for every President to deal with the subject of examinations, and he sincerely hoped that the time would come when it would no longer be necessary to deal with that subject. As one who had been in the throes of examinations for his whole life he could but feel the justice of the remarks on this subject, and he also hoped that the members would carefully read and mark what had been said upon the subject of co-operation, not only as far as the classes were concerned. One really felt more and more that almost a prime mover in all successful work and successful design was Enthusiasm. The late Mr. Ewan Christian took a keen interest in his work up to his eighty-second year of age, and his enthusiasm for the best work was as great at the end of his career as it was in his eighteenth year. That virtue, which is hidden, is vaster than that which appears upon the surface, and therefore it follows that no building is really a great building which has not something to hold behind for the observant and educated few, and he hoped that students would always pay attention to such details which may have something to tell to competent observers in the future.

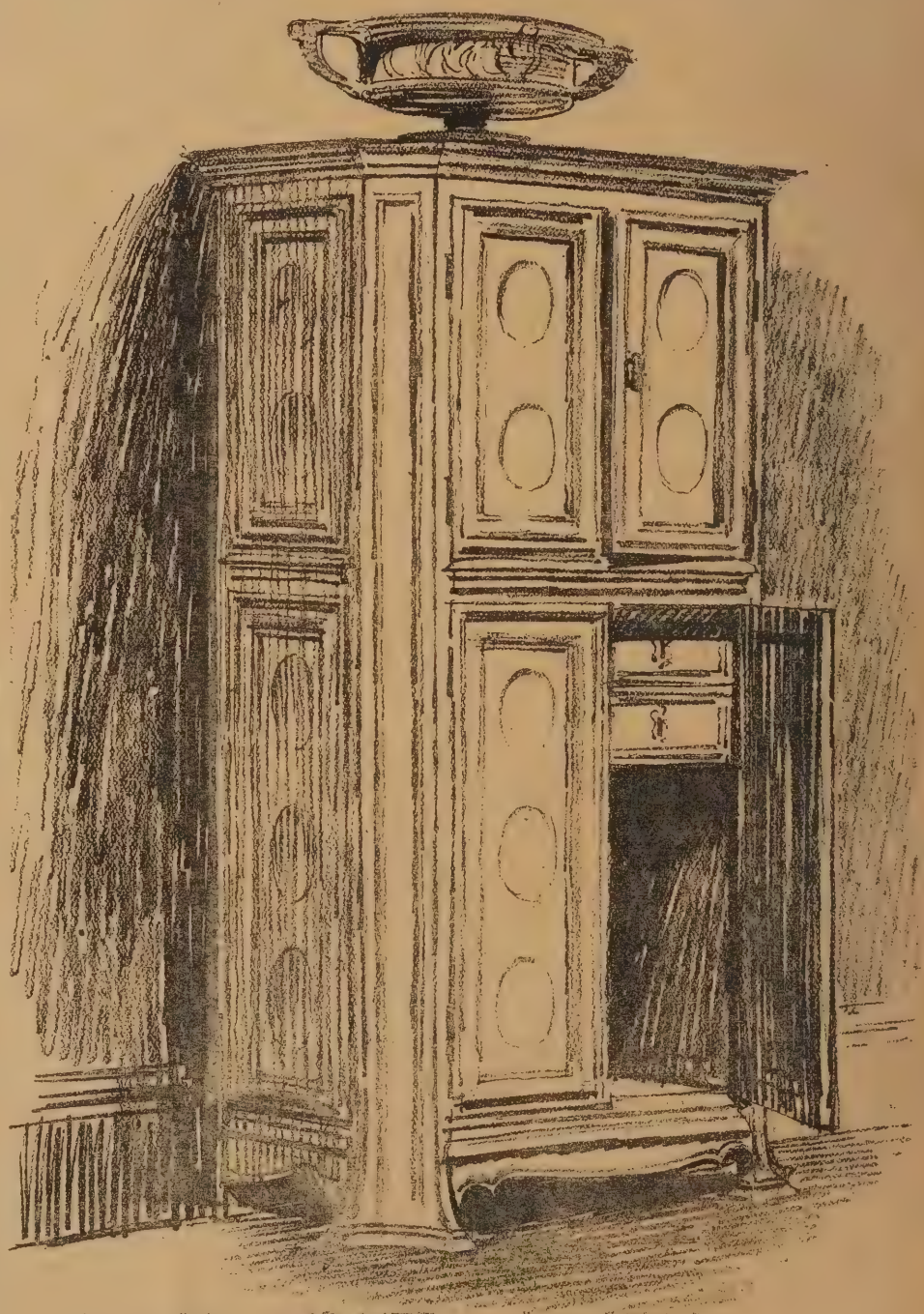
Mr. E. W. Mountford said he wished to add a few remarks. It seemed to him that nowadays students had far greater facilities to work up for examinations, but whether they were of any use to them or not, the future only could show. The amount of work one had to get through was simply appalling, and it had always been a surprise to him that students were not all bald-headed. The President had also referred to the Commercial Architect, who was well sat upon generally, and he thought that the Architectural student, who claimed to be artistic, rather neglected Commercial work. Of course, churches and Government buildings were not required to be made to pay. But most other buildings were required to be made to pay.

Mr. Lane and Mr. W. H. Seth-Smith also supported the vote of thanks.

THE VALUE OF TIMBER.

TIMBER YARDS OF NEW YORK.

IN one single lumber yard in New York it is no uncommon thing to see a stock of rare and costly woods, some from the countries of the Equator, others cut from American forests, that is valued at 50,000 dollars, or more. In one block near the East River front there is often a million dollars' worth piled up in the open air or under the cover of rough sheds. The veining and mottling of a log and the veneers that are made from it fix its value. While all these special woods of commerce are costly, prices three and four times the average are paid for unusual patterns of rosewood, mahogany, and black walnut. There are several hundred varieties of fine woods brought each year into New York, but of these only a few are known to commerce to any extent. Mahogany, French burl, rosewood, curly ash, American quartered oak, figured birch, black walnut, Circassian walnut, and satinwood are the fancy timber varieties that sell the best, their price



AT THE ARTS AND CRAFTS EXHIBITION.

running from 3 to 10 cents a foot for veneers. These figures give no adequate conception of values until they are examined carefully. But the calculation is a simple one. Thirty veneers are allowed to each board of an inch thickness, the boards of these costly woods running about 2 ft. in width. As a rule these boards are 8 to 10 ft. long, and thus a single veneer of mahogany 2 ft. wide and 10 in length is worth, by itself, from 50 cents to a dollar. A double row of these veneers piled up 5 ft. high, is worth easily 2,000 dollars. In the log, mahogany sells at New York at a dollar to a dollar and a half a foot, board measurement. It comes from Mexico and Cuba, and, brought to this city in logs, it is sold in veneers. These veneers, stacked up in piles in the sheds, are so brittle, that the only way of shipping them to the furniture and piano manufacturers is to pack them in cases. A case usually holds 500 sheets, or from 300 dollars to 500 dollars' worth, and is so heavy that the strength of from four to six men, with rollers, is necessary to get it upon a truck. A case is known in the trade as a "flitch." Even unvarnished and unpolished as these rare woods are in the rough, the patterns are easily visible and the designs and veining are very beautiful. Nearly all these woods are sold in veneers, for two reasons —first, they are too costly to use solidly, and secondly, they all have a tendency to warp. Next in popularity to mahogany comes American figured walnut, from Kentucky, West Virginia, Tennessee, and the western ports of North Carolina. The finest logs of this timber are to be found on the slopes of the Blue Ridge and Cumberland Mountains. So important is it to get

WOODS OF FINE PATTERNS

that the leading walnut-dealers inspect the trees themselves before they are cut down. They employ experienced woodsmen to search over the whole region where the best walnut lies for months at a time, and then, the finest trees having been marked, the dealers leave the city and travel through the woods on horseback themselves, selecting the most valuable trees, afterwards buying them from the farmers or the owners of the land. These precautions amply repay the trouble, for the reason that at times American walnut sells for 20 cents a foot in veneers, and a single log 6 ft. long has been known to yield as much as 525 dollars. From Bahia comes the finest rosewood of the world, its veneers selling at 6 cents a foot. It is not sold, however, in any great quantity, as rosewood is no longer the fashionable material it was in the days of our grandmothers. White mahogany from the west coast of Mexico and satinwood from San Domingo of a pale yellow tint and of dainty pattern, the finest qualities of which have sold for 60 cents in veneers and the poorest veneer less than 10 cents, are still in great demand.

ONE OF THE MOST CURIOUS

of the rare woods is Amboy, reddish-brown, veined irregularly, and used mainly for inlaying. It comes from Africa, and is sold at 20 cents a pound. Two of the finest foreign woods are French burl, from Persia, and the Circassian walnut that is cut around the shores of the Black Sea. French burl costs 15 cents a pound, and its grain is a most curious thing. It is really a walnut wood, the "burl" being a wart, or knot, that forms on the side of the tree while it is young, thus twisting the course of the sap vessels, and forming strange patterns and odd combinations of lines. At times these burls are extremely valuable. A single log has sold for as much as 2,500 dollars. The features of Circassian walnut are the high polish to which it can be brought and its vivid stripes of dark brown and black. Some other expensive native woods are figured curly ash, figured North Carolina birch, which has a reddish tinge; poplar and American quartered oak, used mainly for house work. All of these fetch from 3 to 5 cents a foot in veneers. Ebony sold at 70 dollars a ton, cocobolo, somewhat resembling rosewood, and granadilla, heavy and black, are much in use for knife handles. San Domingo lignum vitæ is perhaps the heaviest wood that is to be found. A stick 18 in. in diameter, and 3 to 4 ft. long, weighs from 500 lb. to 600 lb. Spanish cedar and snake-wood, the latter so called because its grain is like the markings of some serpents, are used for many purposes. Turkish boxwood goes to New York in rather large quantities, and has long been the popular material for wood engraving.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
October 14th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

IN connection with the extension of the Public Record Office, the work going on at the present time comprises the laying of the foundations for the portion joining together the old building in Fetter Lane and the handsome new structure which fronts Chancery Lane. The existing gap has been produced by the regrettable demolition of the ancient Rolls Chapel and the Rolls House, and when this site is again covered—it is estimated in about 18 months—the old and new buildings will form two unbroken sides of a parallelogram. Another fresh structural line, making the third side of the figure, will then be commenced; and the entire scheme of enlargement is expected to occupy altogether about five more years. The section now in hand is designed to include a museum, in which will be preserved many valuable memorials and relics from the Rolls Chapel and the Rolls House, these objects of interest having been carefully removed when their former homes were pulled down.

ONE of the oldest and most characteristic houses in Morpeth has been rased to the ground. It was the only remaining example, save one, in Morpeth of the first floor overhanging the ground story in the manner that prevails in old Chester, in Shakespeare's country, in the old towns on the south coast, such as the old Mermaid Inn at Rye, and in some of the smaller towns in Devonshire. The house in Bridge Street, Morpeth, was pulled down under the superintendence of Mr. T. W. Middlemiss, the borough surveyor. The masonry in it was composed of stones obtained from the ruined Abbey of Newminster, about half a mile west of the Market Place. The abbey had been a convenient quarry where stones were got at a cheap rate The thickness of the walls and the capacity of the chimneys were quite wonderful in their way. Many of the stones were carved, and these were invariably built with the carvings concealed in the wall, a plan which saved redressing them. The front of the house was supported on beams or battens. Along the top of these stretched a very heavy beam of oak, which supported the beams for the first floor; these latter projected over the oak beam about 15 or 18 in., and thus the projecting upper storey was sustained. Newminster Abbey was dissolved in 1535, and most of it appears to have been destroyed shortly after. The house which has just disappeared cannot have been much less than 350 years old.

SHREWSBURY, which was the chosen place for the holding of the Church Congress this year, possesses unrivalled specimens of ecclesiastic and domestic Architecture. The old red sandstone castle, which was erected to guard the only part of the town not protected by water, was built by Roger de Montgomery in 1070, and was last used as such by Charles I. Opposite the castle is the old Grammar School, now owned by the Corporation, and used as a free library and museum. On either side of the main entrance are quaintly-carved figures of a schoolboy and a graduate in seventeenth century costumes, and above them, gaily emblazoned, the armorial bearings of Charles I. The old Elizabethan Market Hall, in the centre of the Market Place, with its arcade, curious carvings, and mullioned windows, is another object of admiration. A figure of a knight in armour in a tabernacled niche in the north gable is said to be that of Richard, Duke of York, father of Edward IV. Of the Churches perhaps the massive Norman Abbey Church deserves mention, as this formed the Church of the famous Abbey of St. Peter and St. Paul, which was founded in 1083. Only a few straggling walls and broken arches remain to show the proportions of the Abbey, but a graceful Gothic stone Pulpit, which is now, alas! situated in a potter's yard, marks the site of the Refectory. St. Mary's Church is well known as being one of the best examples in the kingdom for illustrating the growth of mediæval Architecture, possessing as it does specimens of almost every style, from Norman upwards. There are also in the Church some beautiful and historic stained-glass windows. St. Giles's is said to have been the resting-place for a short time of the remains of St. Wenefrada previously to their interment in the Abbey. St. Alkmond's and St. Chad's are, comparatively speaking, new, but the latter is interesting on account of the novelty of its design. There are a number of quaint half-timbered houses in the town. The gateway to the Council House, with its carved oak pillars, massive gates, and intricate woodwork; Ireland's mansion in the High Street, and the building "erected by Richard Owen, the elder," opposite, are unique specimens of this style of work. But one finds old houses of this description at every turn, and oak floors, oak panelling, and Elizabethan staircases are anything but uncommon in Shrewsbury. By the banks of the Severn one will come across the New Grammar School, the old watch tower, the watergate, and the old tower in the town walls—the last one left of twenty which were erected in Henry III.'s reign.

AT a recent meeting of the South Wales Art Society held to inaugurate the opening of the ninth annual autumn exhibition of pictures at the society's gallery, Queen Street, Cardiff, Lord Windsor said:—They had heard hard things of Welsh Art, and he would not say they were altogether untrue, but some people had ventured too far in their criticism of it. It was hardly possible to imagine that artists born and bred in Wales should take their position as Welsh artists, under the position they had to hold. It was not the fault of the artists; it was the fault of the public. Taking some of the larger towns of England and Scotland, they found there a great, appreciative public who knew what it was to honour an artist who lived in their midst, and showed their appreciation of him by the ordinary method of purchasing his work. But how could a young artist establish himself in a village near Cardiff, say, in the delightful village of St. Fagan's, and make a name for himself? If such a one existed, he naturally went to London, where he had the possibility of making himself known and appreciated. That was their difficulty. They had got the population, commercial position, and education, but he hoped in the future Art would not be forgotten. There were possibilities of the Government giving them assistance that would be invaluable; but if they prepared the way, if they gave proper facilities, if they had a proper gallery, they would find their friends in Wales would come forward, and there would be in Cardiff appreciation of Art equal to that in the other large centres in England and Scotland.

TWELVE months since the City Council acquired a site of about 4,030 square yards in Milk Street by an improvement scheme for the better housing of the working classes. The ground was at once cleared of the insanitary buildings that formerly occupied it, and it was offered to private builders for the erection of improved dwellings. The Improvement Committee obtained authority from the City Council in May last to formulate a scheme for carrying out the provisions of the Act of Parliament on its own account, and it is felt that the time has arrived to take action, and it is intended to recommend to the Council the erection of 68 dwellings, at an estimated cost of £6,500. Designs for the proposed buildings have been prepared by Mr. Addie, somewhat similar, although improved in some details, to buildings of the class that have been erected in Liverpool. The suggested dwellings are in two storeys, the upper floor consisting of distinct dwellings to those on the ground floor. The latter are entered from the level of the street or terrace, while the doors of the former open on to

an external balcony at the back. Each dwelling consists of a living-room and two bedrooms, a scullery and closet being provided in a detached building at the rear. These tenements Mr. Addie describes as "labourers' dwellings" rather than artisans' dwellings, and estimates that they may be let at rentals as low as 3*s.* 9*d.* to 4*s.* 3*d.* per week. They are not correctly described as "flats," as each dwelling has its separate entrance and is self-contained, but the plan to a certain extent would embody the advantage of the flat system, of being able to place more than one dwelling upon land that otherwise would be monopolised by a single house, and so reducing the cost.

IN a very able and pertinent letter to the Irish Times Mr. Thomas Drew, president of the Royal Society of Architects, protests against the wholesale obliteration of old street names in Dublin. One would have thought that in a city where patriotism is supposed to have its highest manifestation, and a large element of it is regard for antiquity, there would be a desire to preserve and not destroy old landmarks and historic reminiscences. Instead of this, the "powers that be" are apparently always ready, at the suggestion of anybody, to alter the name of a locality, creating confusion where questions of identification arise, and absolutely cancelling many incidents which were usefully kept in recollection by the title of a thoroughfare. Mr. Drew gives instances of the perfectly causeless and indefensible meddling, the latest instance being the substitution of the fancy and inapplicable name of Chancery Street for the former well-known Pill Lane. Why not change every street by one sweep, so that the present humour may be satisfied, and Dublin become a perfectly fresh place, on an entirely new nomenclature? There are people, doubtless, who would desire this. They would not care what outrage it proved to sentiment, what offence it was to dramatic instinct, or what damage to business, if it gratified a selfish whim. The tendency is not only ruinous historically, but reflects a temper that is not in any sense commendable. Mr. Drew explains that only ignorance of the significance objects to the word familiar in one case. Mullinahack, on the other hand, was a strong, well-sounding term, and gave offence to nobody. Elephant Lane and Tucker's Row are older changes of highways from Sackville Street. But why even those alterations were made, nobody can tell.

LATE years have seen several monuments erected in the City churches to notable men whose place of burial had for centuries been suffered to remain unnotified. Thus Milton has now a monument at St. Giles's, Cripplegate, Samuel Pepys a tablet at St. Olave, Hart Street, Sir John Gayer a brass at St. Katherine Cree, and John Hemming and Henry Condell are memorialised in a splendid monument at St. Mary-the-Virgin, Aldermanbury. The practice should surely be extended to other City great ones whose burial places have at present nothing to indicate them, says the City Press. For instance, St. Benet, Paul's Wharf, received, in 1653, the remains of Inigo Jones, whose influence on City Architecture, fostered by his still standing Church of St. Katherine Cree, and transmitted by Sir Christopher Wren, still stamps the City ecclesiastical and much of the City commercial Architecture to-day. And yet St. Benet's contains nothing to note that it was there that he, Inigo Jones, was buried. It is true that St. Benet's did not always bear this reproach, for before the Great Fire it contained a monument to his memory. After the Fire nothing was done to tell the generations that come after "Here lie the ashes of Inigo Jones," but it is time that this should be remedied. Will not the Rev. W. J. Loftie, whose appreciation of both Inigo Jones and Wren is so well known and so enthusiastic, set the matter afoot? A simple stone or brass would not cost much, and it is surely worth the doing.

A SMALL collection of drawings by Sir Edward Burne-Jones is to be seen at the Goupil Gallery in Regent Street, which are described as "painted in a new method." About the method there does not seem to be much that is new, though the result is pretty and decorative enough. The compositions, single figures or groups, or studies of heads, in the well-known manner of the artist —are delicately pencilled with the brush, chiefly in various shades of gold, on a groundwork of flat colour. This flat groundwork, of a pronounced but rather low tone—blue or brown, purple or pink—resembles the body colour preparation with which the Italian masters covered their paper before drawing in silver-point. There exist drawings by Ghirlandajo and Lorenzo di Credi on paper of strange dyes. The effect is perhaps rather odd than pleasing, as the ground colour is purely arbitrary, and does not serve any purpose of suggestion. Some draughtsmen, it is true, have so used the colour of their paper as to produce a charming and discreet hint of natural effect; but, as a rule, the more quietly this is done the better. A strong tone would defeat its own object. With regard to the present series, some persons will feel that the drawings are most satisfactory where there is least colour, and least so where the colour is most pronounced.

AT the inaugural meeting of the Chester Guild of Arts and Crafts, Dr. Darby defined Art as an endeavour to give the highest ideal of beauty in all its forms. That in itself certainly demanded at the hands of those who worked in Art considerable self-government, considerable control, lest their ideas should become fantastic. When one looked at the history and realisation of Art he might sometimes have been struck by skill running somewhat wild. Then Art did not become perhaps quite as healthy and wholesome as could be wished, but when any endeavour requiring at our hands self-government, self-restraint, and also the highest possible endeavour to reach the summit of the ideal was spoken of one knew that then a very great work was going on. And if, as he supposed, all had felt, more or less, that no colour that skill could discover in the wonderful combinations here given to us by the study of chemistry and so forth, reached the natural beauty of the rainbow, or the colours we saw in the clouds, the flowers, and the sea in the sunlight, that did not proclaim the uselessness of Art. Far from it. Perhaps it might be that the highest endeavour of Art, as it had lately been said of the highest endeavour of philosophy, only permitted a half vision of transcendent truth. It did not send one away in despair, but stimulated to a still greater endeavour to reach the highest conceivable ideal.

ON the Place de la Concorde, Paris, the statue of Strasburg is a species of thermometer of the national feeling of the Parisians. Since the loss of the Rhine provinces by the Franco-German war, that statue has been distinguished from its sister statues in truly French fashion. It has been covered with wreaths and immortelles, as though the statue were a sepulchral monument. English visitors to the French metropolis have wondered that a nation could so wear its heart upon its sleeve, and spoil the finest open space in the city with a memento of defeat and disaster. That is one of the things they do ill in France. To the French Strasburg is dead, and they proclaim the fact to the world by tinsel emblems of mourning.

THE newly-organised Society of Designers holds its first general meeting at the end of this month. This meeting will be important, as it will chiefly be devoted to the consideration of the rules and constitution of the Society, and to the making of careful provision for its smooth and efficient working. The objects of this association of Designers are stated to be "to support the dignity of the profession, and for friendly and social intercourse"; and the qualification for membership is the possession of a recognised position as "a professional designer for applied Art." Already many men of standing have joined the Society, of which Mr. G. C. Haité is president, and Mr. L. P. Butterfield is hon. secretary. There seems every probability that it will prove able to safeguard and advance the interests of design, a branch of art practice which has hitherto been rather obviously in want of organisation, and we wish it all success.

ACCORDING to the New York World, Mr. Joseph M. Huston, a Philadelphia Architect, has designed the largest office building in the United States for construction in New York city. Mr. Huston states that the plan consists of an enormous arcade like that of the Victor Emanuel in Milan, the arch of which should be 30 ft. high. On either side of the arcade will be stores with a frontage of 50 ft., and 85 ft. deep, which would make 16 stores in all. Flanked at each corner of the block will be four square buildings, 70 ft. by 70 ft., and 15 storeys high, with a clubhouse on the top floor, covered by a immense roof garden. The clubhouse is intended to be used as the United Clubs of Paris are, giving each small club a separate room with a buffet, all to be supplied from a central restaurant. The remaining 14 floors will be devoted to offices, about 150 on each floor. A theatre and concert hall will be erected on the ground floor, each of which will have a seating capacity of about 3,500 persons. On one side, running parallel with the arcade, will be a large hotel 20 ft. by 100 ft., containing about 500 rooms. On the side opposite to the hotel, the arcade side entrances will be located. The cost of the building will be about 5,000,000 dollars.

SIR W. B. FORWOOD, at the meeting of the Liverpool Corporation last week, in moving "that the committee be authorised to instruct Mr. Mountford to prepare working plans and specification to carry out his premiated design for the extension of the Museum Buildings and new Technical Schools, at an estimated cost of not exceeding £92,000, subject to such modifications as may be determined upon by the committee, and that the committee be authorised to engage a quantity surveyor to take out the quantities," said that the buildings would be erected without asking the ratepayers for any additional rates, and out of the present resources of the committee. Reports received from the inspector showed that the present school in Islington was insanitary and entirely unsuitable for the present purposes. Other premises of the School of Science were equally bad, and had been condemned by the Government inspector. It was overcrowded with students. He quoted figures to show that Manchester had spent £132,000 upon a central school, and that other towns in Lancashire had provided schools for a similar purpose at great cost. In the county boroughs of Lancashire no less than £424,000 had been spent in erecting schools for technical instruction. The new buildings would provide accommodation for the extension of the museum. The present galleries would run into the new buildings, leading to great convenience to visitors. This extension would make it one of the finest in the world, and there were now collections stowed away in the cellars for want of room to display them. A great deal more room was required for the better display of the scientific specimens. The cost of the museum had been entirely defrayed by the liberality of the late Sir William Brown, so that the present outlay in its extension was the first sum of money which the Corporation had been asked to spend.

ASTLEY HALL (originally "Dam House") is situate about 11 miles from Manchester. It bears the date of 1650, when it was erected by the Mort family, from whom it passed to the Wetherals. It now serves as an Infectious Hospital for Leigh and district. The walls externally are rough cast, stone dressings only to the windows; the latter on the ground floor of the bays have been modernised, the original studded oak door remains. Wardley Hall, near Worsley, Lancs., is a fine old place dating from the time of Edward VI. The property has often changed hands, and is now owned by the Earl of Ellesmere. In a small locked recess a skull was preserved, said by some to have been the head of Roger Downes; the Downes family were once possessors of the estate. In our last issue we published sketches by Mr. Edgar Hartley, on pages 137 and 139.

A GOLD casket is to be presented to Princess Charles of Denmark by the City Corporation, and is a good specimen of the modern goldsmith's craft, designed and carried out by Messrs. Elkington. The casket, in gold *repousée*, is oblong, with the corners taken off. On the large front panel are the arms of the City of London, the corresponding space at the back bearing a beautiful little representation in enamel of an ancient Danish war vessel. Other spaces are filled with cupid and flowers. The lid in front bears shields—linked by floral emblems and supported by figures symbolising s rength and wisdom—on which are enamelled, in proper heraldic colouring, the arms of England and Denmark; while surmounting the whole is a figure representing Peace and Abundance.

An attempt has been made in the gallery at South Kensington occupied by the Raphael cartoons, to secure a quality of lighting which will be harmless to delicate colour, and is said to be so successful that further experiments with the same object are to be made in some of the other galleries in the Museum. The principle which these experiments are intended to prove is that an effect of white light can be best produced by glazing the skylights of the galleries with a proper combination of coloured glass, and that the illumination so produced is preferable to ordinary daylight. This may be quite correct in theory, but in practice there is, under such conditions of glazing, a very marked diminution in the amount of light in the room. It is quite open to question whether this loss of quantity is not too great a price to pay for the gain in the quality of the light.

A meeting was recently held in support of the movement which has been set on foot to establish a museum for the County of Hertfordshire at St. Albans. A Provisional Committee has already been appointed for the purpose of dealing, amongst other questions, with that of a site, and in a report which was presented the Committee stated that Earl Spencer had offered a site in St. Albans adequate to the erection of a museum directly it could be shown that a representative body of the county and of St. Albans were favourable to the erection of a museum in St. Albans, and could provide sufficient funds to erect and maintain it. The scheme put forward by the Committee contemplates the raising of a sum of about £5,000, about £3,000 of which should be expended upon a building and fittings, and the remainder be invested as an endowment fund. It is suggested that when completed, in order to secure perpetuity to the museum, it should be vested in the hands of the County Council, and its management given to a Committee chosen from representatives from the County Council, the Hertfordshire Natural History Society, and the St. Albans Architectural and Archæological Society, and others interested in the Arts, Sciences, and Archæology of the county.

At the Birmingham Museum and Art Gallery is being held a Loan Exhibition of Works by William James Muller, which comprises nearly 200 paintings, water-colour drawings and sketches, and pencil studies. In looking round the Exhibition one cannot help being astonished at the amount of work Muller accomplished in his short life, especially when it is remembered that a great many big canvases and water-colour sketches, not shown here, are held by private collectors. Muller was an English artist who owed little or nothing to any master. He certainly studied for a short time under J. B. Pyne, but he gained little from him, and the latter's influence can hardly be traced in his work. His only master was Nature, and Nature always found him a student of ceaseless energy and keen observation. To a certain extent he was influenced by some of the old masters, as may be seen in some of the pictures exhibited, where the influence of Hobbema or Ruysdael is easily traced. In his freakish moods he would dash off an imitation of Poussin or Van Ostade, and he studied with keen pleasure the works of the "Norfolk" School, Cotman, Crome, and Constable, more especially after a visit he paid to the counties in which they painted; but in spite of these tendencies, which may be pointed out in his earlier work, he soon made for himself a style of his own. Those who only know the dash and colour and power of his Eastern and Egyptian pictures will be surprised as well as pleased with his work with the lead-pencil. A number of pencil-studies of Old Bristol, lent by Mr. J. W. Arrowsmith, which he produced when he was only eighteen, were most of them made in company with Skinner Prout, who was at work on a series of drawings for a book of Bristol antiquities. Muller's drawings made at this time (1830–31) show great keenness of observation, coupled with vigorous and accurate draughtsmanship, and while they contain a decided suggestion of the style of the elder Prout, they in many ways equal him upon his own ground, and it is a great pity they have never been reproduced and published, both for antiquarian and artistic reasons. There is also a series of pencil-drawings, made a few years later, when Muller first visited the Continent with George Fripp in 1834.

THE ATTITUDE IN THE PROVINCES TO THE INSTITUTE.

Of What Benefit is it to Affiliated Societies?

A Criticism by George Bradbury,
President of the Liverpool Architectural Society.

Breaking through a precedent which has always been followed ever since 1889, when the Society was allied with the Institute, the Liverpool Architectural Society has elected one of their members, Mr. George Bradbury, as their President for this Session, who is not a member of the R.I.B.A. This also applies to the Vice-President, the Secretary, and Treasurer, none of whom are members of the Institute. Mr. Bradbury, in his Presidential Address on Wednesday last, said:—The proceedings, the Charter, and the management of that body has been a subject of great interest to the whole of the Architectural Societies throughout the United Kingdom, and therefore I think you will excuse me if, instead of addressing you upon Art and Architecture, we come down to a subject of very grave importance and practical utility, and consider for a short time what may be said for and against the Institute. "Your Society has seen fit to enter into alliance with the Institute, under which it becomes the accredited centre of a district and the agent of that district, in its relations with the heart of this system in London." These are the words used by the Institute's President in his address at the opening of the Session 1893–4. Further, you have agreed that "the constitutional rules or bye-laws of allied Societies shall be subject to the approval of the Council, and that no addition thereto, or variation thereof, shall be made without previous notice to and approval by the Council." If your President happens to be a member of the Institute, then he has a right to attend the meetings of the Council of the Institute. This appears to me a very advisable and proper alliance for your Society to have adopted. I think everyone will admit that in these days of great competition it is exceedingly advisable that there should be a central authority in London. That should look after and guide the education of those who intend to follow our profession. That should collect and purchase books, and establish a Library for the attainment of knowledge. That should call meetings, and arrange to have papers read on subjects of interest to their members. That should publish their proceedings in a journal, and take note of everything relating to legal decisions and other matters useful to the Architectural profession. Now all this the R.I. has done in the past and is doing in the present. Its system of education through the Architectural Association is probably as fair a one as can be devised for London. In Liverpool there are many members of our profession who think the mode of examination capable of

Very Great Improvements.

Mere cramming the mind with a large number of facts, dates, and names of celebrated Architects of past ages will never produce an Architect, but it may make a good Historical Architectural writer or Archæologist, but this knowledge, although of a certain amount of benefit, will never teach him to design plans suitable for modern requirements. The whole system of education at the present time throughout the kingdom, even in our Board Schools, Colleges, and Universities, is undergoing a change. The professors and teachers, instead of cramming their pupils with a vast store of book knowledge which is probably forgotten as soon as the examination is over. They are now endeavouring to find the strong points and the individual abilities of their pupils, and to encourage them to work and to think out for themselves problems in life which may be presented to them. In this connection I should particularly like to repeat the words addressed by Sir Joseph Lister at the British Association meeting recently held in Liverpool. He had been exceedingly pleased to find that here in Liverpool there was what in London they were still, he trusted not hopelessly, striving after, a true teaching university, having not only men of high eminence as professors and every appliance for effective education, but professors who took part, although not an undue part, in the examination of their pupils. Considering the complexity of subjects it was surely unjust to a student to be taken before examiners, strangers to the course he had gone through, not to mention his personal character, who, in the course of a few minutes, had to decide whether he was a creditable student or a sluggard. That seemed to him a grievous injustice. Infinitely worse was the effect of such a system on the student's career. He agreed with what was said the other day by the President of the Mathematical and Physical Section, that what they wanted was not to cram a student with a large amount of knowledge which he would soon lose, but to educate him in habits of observation, reflection, and judgment. But if taught by one set of teachers and examined by another, he was driven from legitimate work to the grinding mill. He rejoiced, therefore, that this great city and centre of education enjoyed the inestimable advantage of a teaching university. With all these advantages, is it not strange that out of about 78 members of your Society only 24 are subscribing members to the Institute? To obtain, further enlightenment I attended with Mr. Culshaw the late President, the Manchester Conference held on May 20th, when an address was read by Mr. Henry Salomons touching the "mutual relations between the local affiliated Societies and the parent body in London." The great point of that address was the "most important benefits resulting from the relationship of more frequent personal intercourse between non-metropolitan Societies and the Royal Institute, whereby provincials got their views enlarged by the experience of those at the head of the profession, and thus improved the standard of our own work." A great deal was to be gained by social intercourse and such a gathering as that at which we are now assisting. It was to myself a very great pleasure to meet Mr. Alfred Waterhouse and many others too numerous to mention. But I cannot see where the benefit is derived by your Society as a body in sending your President, whoever he may be, to Manchester or London to eat a dinner. You may say that the President, attending the meeting of the Council in London and meeting those from allied Societies, brings back information which would be of value to the whole of his professional brethren; but this is not so, for I read in the address delivered by Mr. William Henman, the President of the Birmingham Architectural Society, that he attended three meetings of the Council of the R.I.B.A., yet on none of these occasions, he said, "have I met any of the representatives of a provincial Society, although there are eight who are members of the Council, and there are 15 Societies in alliance with the Institute." It was remarked at Manchester that people asked what benefit they would derive by becoming Fellows of the Institute, although there were many highly interesting addresses delivered as to why all the Architects in the provinces should become members. I am sorry to say they only appear to me to be

Fellows on Sentimental Grounds.

The president of the Manchester Society said that "it seemed to him that Architects must follow all other professions or businesses in one thing." "There must be co-operation, or 'trade unionism,'" as Mr. Golthart had called it. Now with these words I cordially agree, that is, to make the R.I.B.A. in profession and in practice a "trade union." You may not like the words but alter them to any other you prefer, but let the union of self-protection and advancement in knowledge and in brotherly feeling be the watchwords. All the great and learned professions have some system of union. Medical men have to obtain certain degrees and pass certain examinations before they are allowed to administer even the simplest form of medicine to a patient. The Solicitors have to pay a high premium and serve five years, and pass an examination before they are allowed to practise. Even the Accountants have had to amalgamate, and now use the word "Chartered." There is not a single artisan that is employed to carry out our works that does not belong to one trade union or another, even down to the lowest-paid labourer. To bring this about there will have to be great changes in the Institute. For the admission of a student an exceedingly moderate fee per annum should be demanded, and he should be supplied with all the printed matter issued from the Institute; even if it caused a slight loss, he should, in my opinion, be registered as an Associate when he has completed

a certain number of years of study either at a recognised Art School or College, and after passing an examination of a not too severe character, and more of a practical nature than of mere historical knowledge. The Associate's subscription should not be for the provinces, more than £1 1s. It should, in my opinion, be the aim of the Institute to enrol the whole of the Architectural draughtsmen. The election of Fellows should be entirely in the hands of the Council, and all Fellows of Provincial Societies should be elected as Fellows of the Institute on making the ordinary and requisite declarations. Their subscription should not be more than £2 2s., and I think if you wished the "trade union" idea to be carried out the entrance fees should be done away with. This question of election was in the minds of the Congress in Manchester, and it was remarked that there were many outside the Institute who ought to belong to it. Mr. Holden said that he could quite understand that a gentleman who had been in practice 20 or 30 years would say, "I would sooner remain as I am than place myself in a position of being voted upon by gentlemen who have passed through my office and some of whom may be in my office now," no doubt referring to the Associates who now have considerable power in the election. Mr. Slater said he felt very strongly on the subject, and if there were a possibility of a repetition of what had occurred a year or two ago, when some very admirable and eligible men were black-balled for no fault of their own by people who, he believed, knew nothing about them, then the Council, he said, ought to take steps to alter the bye-laws, and limit the election of Fellows to Fellows themselves. If these are the views of the Fellows in the Institute, what must be the views of those outside? On the financial view of the question I should like to give you a few facts. The contributions of the members of the allied Societies of the Institute in 1895 were, I believe, about £800. The Institute returned to the allied Societies one-fourth of the subscriptions, say £200; what benefit, I should like to ask, have the allied Societies gained by giving the £600 to the Institute? Or, taking our Liverpool Society, 15 Fellows at £4 4s. each, and 10 Associates at £2 2s. each, gives a total of £84, of which one-fourth (£21) was returned to the Society; what benefit does the Liverpool Society or the Architectural profession reap from this expenditure of £63? In London, it may be said, you can obtain the advantages of the Institute examinations, but I am not sure if we cannot boast of having in Liverpool a School of Architecture established at the University that gives to our students a superior system of education than that given by the Association or the Institute in London. I think and hope, in years to come, that the Certificate granted by the College will count as high as any that has ever been given in London. The total number of students attending all the various classes in Architectural drawing, modelling, handicrafts, is very large, and I have no doubt you will be pleased to know that I have the authority of Professor Simpson to say that the school is now in a very flourishing and satisfactory condition. The College has a small but Architectural Library, and a very considerable sum of money is now being expended upon Architectural casts. We have in the Public Library one of the finest collections of Architectural books in the kingdom; so extensive is the number of the books that a special catalogue has been issued, which contains the names of 1,070 volumes devoted to Architecture alone. There is a similar catalogue issued on Building Construction, making a total of about 1,453 volumes appertaining to our profession alone. The Journal of the Institute we can all read in the Free Public Library. My view, therefore, is that until the Institute have amended their Charter and bye-laws, so as to make it possible for every practising Architect and those associated with him to become members, it is useless for us to look to London for guidance in our profession, but rather that our efforts, energies, and—what is not of so much importance—our money should be devoted to helping forward and encouraging all our local efforts, which I feel you will all agree with me are now, and will be in the future, second to none in the Kingdom. If this idea of

PROFESSIONAL UNIONISM

can be brought about in the next 10 or 15 years an absolute and visible effect will be seen. I feel we shall have done very much towards doing away with that great incubus of our profession, I mean the competitive system. What can be more lowering to the dignity of a profession, whose members have to construct homes in which the lives of its citizens must be passed, and in the schools of which the young are taught, than to find an advertisement like that of the Bootle School Board, inviting competitive plans from the Architectural profession without offering any premium whatever for any of the designs sent in? But, on the other hand, the Committee who has charge of the education of the district demand from every Architect who wishes even to know what the conditions will be, a fee of £2 2s. A charge of 1s. would have been ample for such particulars, and would more than have paid for the cost of printing. They desire not only to pick your brains but your pockets as well. Are there no Architects in this neighbourhood fit to design and honestly capable of erecting a Board School without entering upon this wretched competitive system, which is neither satisfactory to the Architect or the proprietor, as it nearly always leads to misunderstandings on such matters as cost? Another growing evil, and a great danger to our profession, is that large firms and limited liability companies now undertake the erection and the furnishing, including the whole of the plans, of houses, mansions, and public buildings. There are instances known in our profession where furniture removers have offered to supply designs for additions, and stables and other outbuildings, free of cost, and even where there was an Architect already employed upon the work. I need not further enlarge to you by further illustration what a great benefit the Institute could become

IF WORKED ON THE LINES

I have suggested. The total number of members in all classes in 1885 belonging to the Institute was 2,504; this is probably a mere fraction of those calling themselves Architects, probably not more than one-tenth. If the Professional Union could enrol one-half of those calling themselves Architects throughout the United Kingdom I feel sure they would have a body of at least 10,000 members. They then could pass a bye-law that all competitions shall be carried out under the Rules of the Institute or the members of the Institute decline to compete; they could pass the resolution that the members of the Institute would decline to receive contracts from building contractors, decorators, furniture removers, who supply plans and carry out Architectural works on their own account. There are many other similar regulations which they could enforce of vast benefit, in my opinion, to the Profession. I must apologise for having detained you so long on this subject, but it is a legacy left over to me by your former President. I had no idea, when accepting this position, of the mass of correspondence and the literature I would have to peruse on this subject, and I have felt compelled to ask you to take the matter into your serious consideration, and that all the members of the Council of the Liverpool Architectural Association, or Fellows and Associates in Liverpool of the R.I.B.A., will do their utmost to attend a meeting to take into consideration letters and correspondence with the Institute on the question of the election of Fellows. The reply from your Society is requested to be received by the Institute before the 12th instant. The Birmingham Society has very kindly and with the utmost courtesy sent us their views on the Interim Report on the subject. For the present I particularly desire you to consider the views I have expressed this evening as entirely my own; I cannot hope or think that they all will be approved or even adopted by your own members as a Society, but, with your permission, I will read you a few words addressed by Mr. Alfred Waterhouse, R.A., Gold Medallist and President, 1888–91, who said at Manchester that he believed that members of the Institute might very safely agree not to take part in competitions except among themselves. He thought the Institute must make a great change in the mode of election of Fellows, and concluded by giving the reasons which should induce Architects to become members of the Institute. It was not merely a question of whether they were to derive individually certain advantages by becoming members of the Institute, but whether by joining the Institute they could advance their Art and the profession to which it was an honour to belong. There are other subjects upon which I should have liked to have addressed you. We have had three excursions during the vacation. One to that splendid specimen of half-timber Cheshire Architecture, Mr. Hudson's house at Oxton, so beautifully and magnificently carried out in the true spirit of the old work, designed by members of your Society, Messrs. Grayson and Ould. Another excursion was to the large new model works and model villages of Port Sunlight, also carried out by Messrs. Grayson and Ould, Mr. Owing, of Warrington, and others. You will readily call to mind a third excursion was to Stockport, to visit one of the most magnificent Churches of modern times, by Messrs. Faily and Austin. We had hoped to have visited another very celebrated work by another local Architect; "Dorpeel," the residence of Mr. Ismay, and designed by Mr. C. Francis Doyle. For the organising of their excursions, the Society is indebted to Mr. Pearce Edwards, Secretary of your Excursions Committee. I would have liked to have spoken at length on the alterations that it is proposed to make in the Liverpool bye-laws. To some of these your Sub-Committee made amendments which have been approved and adopted by the Corporation Committee and the City Council. Another bye-law which the Corporation Committee passed and sent for confirmation of the City Council, was rejected, mainly, I believe, through the energetic action taken by the Council of the Liverpool Architectural Association. In the consideration of these alterations to the bye-laws we had the able assistance, and were able to work most harmoniously with the Master Builders' Association and the House and Land Owners' Association. These two Societies contain a much greater number of members than your own, and yet I think you will take it as a compliment that the President of the Architectural Society for the time being was Chairman at all their meetings. I would like to have addressed you upon a competition exhibited in Liverpool just about the time of our last meeting, I mean the Royal Insurance Company Competition, of which Mr. Francis Doyle was awarded the first premium. In the competition of the new Technical Schools, although a local Architect was not successful in obtaining the first premium, I think we have every reason to be proud of the drawings and designs submitted by our local brethren. There is another subject of vast local interest upon which I should like to have addressed you, and which I think every Architect in the city should take into careful consideration and support to the utmost of his power. I refer to the High-Level Bridge scheme over the old Haymarket. The late Henry Sumners, who for so many years took such a great interest in your Society, and now, alas! is no more among us, was, if not the original suggestor of that scheme, very intimately associated with it. It was he who a few years ago exhibited in the Autumn Exhibition of Pictures a plan with sketches of the roads and high-level bridge; and whatever scheme may in the future be carried out, that plan of Mr. Sumners's deserves most careful consideration.

A NEW Weavers' Institute, which has been erected at Burnley, at a cost of £7,000, was recently opened by Lady Dilke.

DURING the past week a memorial window has been placed in St. Michael-le-Belfrey, York. The window is the work of Mr. J. W. Knowles, of Stonegate.

WHAT is anticipated will be the finest mausoleum in the country is to be erected in Greenwood Cemetery, New York, over the grave of Mr. J. W. Mackay's son. It will cost about 400,000 dollars.

WHILST excavating for the main sewer at Langton Road, Norton, Malton, the men in the employ of Mr. Anthony Lyons came across an old Roman road, and found the perfect skeleton of a man and other human bones, old coins, and broken urns. The place is supposed at one time to have been a Roman camp.

A NEW development has taken place on the technical side of the People's Palace. The governors have set apart a large portion of the buildings to a school of engineering, which is now equipped with a fine workshop and laboratory. The laboratory is especially valuable, as it is provided with testing apparatus of the latest kind, and is adapted to the most advanced teaching in engineering science.

SHEFFIELD SOCIETY OF ARCHITECTS AND SURVEYORS.

Presidential Address.

ADDRESSING the members at the opening meeting, the President, Mr. C. Hadfield, said:—The closing years of the century will necessarily look upon a very different Sheffield to that graphically described by the historian of Hallamshire in its early decades; and much as we may regret it, beauties of landscape have to give way as the years go on to the needs and requirements of commerce and the expansion of population. In Continental cities and towns where the exigencies of rapidly-growing populations have had to be met, the authorities generally manage to compensate for the loss of natural beauty by the stateliness of their streets and squares, and the general formation of well-arranged building blocks. A street is planned so as to line with some public building or monument seen at its termination. Not infrequently such streets start from a well-devised centre, planted and adorned with statuary or the like, and the gradients of the roadways are well engineered, and convenient for man and beast. Heights of buildings are regulated on clearly defined principles, owners of property being thereby restrained from abusing their rights, and shocking an educated public taste for what is seemly and beautiful. It will be a happy state of things in this city, if it should ever come to pass, when a projected building about to occupy a public position, which is either badly designed, or palpably out of harmony with its surroundings, shall invoke the expenditure of some, at least, of that fund of municipal zeal which is at present concentrated largely on the study of traps and gullies, and the various details of sanitary lore! But I fear such an idea is too Utopian. In plain truth the

Traditions of British Officialism

seem to be invariably fatal to aught that advances the Architect's craft, or to giving a helping hand when there is question of æsthetic considerations. There are cities and towns in Great Britain which give renewed pleasure to anyone endowed with artistic sympathies each time they are visited. From personal knowledge, I instance Aberdeen, Edinburgh, Newcastle-on-Tyne, Liverpool, and Leicester. I saw the latter the other day, after 20 years' absence. During that interval the centre of the town had been practically reconstructed, and I was struck by the prevalence of interesting buildings, the direct outcome of well-laid-out streets and main thoroughfares, which give Leicester the smartness of many a Continental town. In Sheffield, on the other hand, the lines of a large proportion of modern roads and streets have been laid down not quite in accordance with Hogarth's "Line of Beauty." Valleys and hills alike are traversed by distorted paths, steeply graded, with ugly and dangerous junctions, and consequent waste of land, rendering it a well nigh hopeless task to build with beauty or economy on plots thus created. Of late years, I speak from an Architect's standpoint after observation, there have been few important buildings erected in this city that have not suffered in a greater or less degree from the distorted alignment of their sites and approaches, and the fact that new thoroughfares have, with one or two exceptions, been persistently laid out without thought of a leading idea in the arrangement of building spaces, and a disregard of interesting terminations, or vistas, which existed in some of the older streets. Most of us regret the lost view up Norfolk Street closed by the exquisite cupola of St. Paul's, which formed a subject for Blore's facile pencil, and for one of Godfrey Sykes's happiest efforts

The Typical Fashionable Villa,

reared like a packing-case on end on a miniature railway embankment, presenting its front above a distorted, ill built boundary wall, is the direct outcome of this system of laying out building estates, a system which came into vogue with railways and the so-called Gothic revival. I must own to a passing regret, call it sentimental if you wish, at the passing away of old High Street. Its foundations had called for no studied effort, but it was not without merits of its own, and there was a harmony in its general aspect which the new street, in spite of the amount of study and contention it has evoked, does not at present seem likely to attain. The new Town Hall site is an instance of the loss of a grand opportunity to form a striking central point of departure for new Sheffield, the city and building alike having lost dignity and interest thereby in a marked degree. The two main façades have northerly and westerly aspects, while Leopold Street is not in line with the grand entrance, but has apparently the Jubilee obelisk as its point of departure. New Pinstone Street is all awry with St. Paul's Church, on which, and on the spacious churchyard, the new structure turns its back. Matters are not mended by the clumsy wall and railing erected at the time the street was formed. Looking up from Fargate the Young Men's Christian Association and Bank Buildings block out what might otherwise have been a fine view of the tower, and the whole group and an interesting vista from the Church gate's side. Having said so much in a critical spirit, I gladly acknowledge, on the other hand, that our municipal authorities, by their enlightenment and forethought in securing Weston Park, Meersbrook Park, Endcliffe Woods, and other breathing spaces and recreation grounds, have for some years past deserved well of their fellow citizens, as also for the earnest attempts to improve the sanitary well-being of the community. May we entertain a hope that at no distant date the crusade in the Press against

The Smoke Fiend

will receive the hearty support of all thinking men, and result in the end aimed at—an end that can undoubtedly be attained by scientific efforts, without commercial loss. Last year I addressed a few words to the younger members of the society on the subject of culture and self-improvement, and inculcated the desirability of the student of Architecture availing himself of every advantage as a sure road to success. I urged the necessity of the study and measurement of old buildings, their furniture, decoration, and the like, as a means to attain originality and power in design. During the past spring the programme of the Sheffield and District Architectural Sketch Book appealing for subscribers, was issued as the outcome of those remarks. Up to the present time the subscribers' list is not full, and the promoters cannot safely undertake the responsibility of publication until the number is completed. To-night, by the kindness of the Department of Science and Art; of Mr. Percival Hoole, of the Green Lane Works; of the Council and Head Master of the School of Art; of Mr. John Fowler, and of Mrs. Mitchell, we have been able to exhibit a number of the works of the late Alfred Stevens. These illustrate him in his threefold aspect as Painter, Sculptor, and Architect, and are, I venture to think, an address in themselves to students, needing but few words from me. The first publication, by Hugh H. Stannus, "Alfred Stevens and his Work," which lies on the table to-night, and may be consulted at the library of the Sheffield School of Art, should be perused and taken to heart by every

Earnest Architectural Student

in the city. Stannus exhaustively sums up Stevens's life and works in his closing sentences in this wise: "The unity of all Art and the universality of his own is demonstrated by the illustrations in this book. From them it will be seen that all Art is one; and that the division into branches arises in practice only from the difference in the things given and the things required. Further will it be seen that the master was not Architect only; nor only sculptor, painter, or ornamentalist, but possessed that combination of balanced mastery over all which makes a man—an Artist. As Architecture is nobler with the aid of sculpture, sculpture is stronger by reason of such curb as the chief Art brings, while each is richer by union with the other sisters—pictorial work and ornamentation. So herein was the master's work noble, strong, rich, and herein will it seem to say, and say with increasing power, to students yet to come, in these words, chosen by himself: 'I know but of one Art.'" Sheffield is the richer by its association with Stevens, who, on the recommendation of his friend, Young Mitchell, then head master of the School of Art, was employed as designer at the Green Lane Works in the years 1850–51 by the late Henry Elliott Hoole. The City Corporation at Meersbrook has earned the gratitude of Art students the world over by finding a resting-place for the treasures enshrined in the Ruskin Art Museum. I urge strongly the desirability of bringing together the master's works, while those who knew him, and were associated with his work during life, are here to see that the collection is made worthy of the artist.

Alfred Stevens's Life

should be the best of object-lessons to the young Architect who is in earnest. His long exile, over seven years, from his own country, which he left in early youth, at the age of 16, for Italy, there to receive in that historic land his first impressions; his perseverance and hard work under all kinds of difficulties, journeying from place to place, and eking out his slender means by drawing portraits or copying pictures; his studies at Naples, Florence, Rome, Sienna, Venice, and elsewhere, and his return and final landing at Southampton with an empty purse, but with a richly-stored and cultured intellect, are an oft-told tale. Then, as the years went on, he put his hands to all kinds of work, the illustration of books, designing of metal and woodwork, painting, mosaic, sculpture, and Architecture; taking infinite pains that all he did should be of his best, and all this in the face of disappointment, neglect, and difficulties that would have broken down many an ordinary man. Dying at the comparatively early age of 58, he has left us the Wellington Memorial, in St. Paul's, what Stannus justly styles "A new inspiration. There had been executed before this more important groups of sculpture, much larger works of Architecture on the Continent and elsewhere, but in no one work were all so perfectly combined, and he may be said to have in this work reunited the mantle, and to have brought back the sceptre of Art, one and indivisible, to England." Let students of Architecture try in all reverence to follow this master's footprints, and let them remember there is no greater obstacle to a man acquiring Architectural proficiency than the neglect of small things. Buildings of an ordinary everyday kind do not pay unless cast in a commonplace mould, and are not, therefore, worth trouble, and will, if pandered to, prevent an Architect from rising to even respectable mediocrity. He may, ere the evening of life overtakes him, attain to a flourishing practice, and succeed in acquiring a goodly store of this world's goods, but he will have one day to leave all behind, with little claim on the gratitude of contemporaries or recognition by posterity."

The Spire of Holy Trinity Church, Swansea, was, in a recent gale, blown down.

The great improvements resulting from the application of science to sub-aqueous tunnelling is shown by the fact that whilst the Thames Tunnel cost £1,150 per lineal yard, the Blackwall Tunnel, consisting of iron lined with concrete, and of 25 ft. internal diameter, has, by means of Greathead's shield and grouting machine, been driven from shaft to shaft, a distance of 754 yards, for £375 per yard.

A bust of Thomas Carlyle was recently placed in the house in Ecclefechan in which he was born. The house now belongs to Mr. Alexander Carlyle, a nephew, who married the favourite niece and amanuensis of the "Sage of Chelsea." The bust, executed by Mrs. D. O. Hill in white marble, is an admirable representation of Carlyle, and was presented by Dr. Gunning, of London.

Sir Arthur Blomfield recently paid a visit to Salisbury Cathedral, and expressed his complete satisfaction with the work of strengthening the foundations of the Tower. The work is being paid for as executed, and on Sir Arthur's certificate the sum of £3,500 has been handed to the contractor. The report shows some progress in the matter of funds. One £10,000 has been subscribed, but much more is still required.

Henry King, a steeplejack of Leeds, recently brought an action under the Employers' Liability Act at Leeds County Court against Thomas Kidney, a chimney-builder, to recover £300, damages sustained in consequence of an accident at the New Wortley Gasworks. King was engaged in renewing the lining of a chimney at the gasworks, when the rope which supported the seat on which the plaintiff was sitting suddenly snapped, and he was precipitated to the ground, a distance of about 60 ft. He received very serious injuries. It was contended that the rope was defective. A verdict was given for the plaintiff for £125.

Professional Items.

COCKERMOUTH.—Mr. J. Dale Oliver, of Carlisle, is the Architect for new banking premises for the Carlisle and Cumberland Bank, whose business has for some time been carried on in temporary premises in Main Street.

ASHBURTON.—Erected in 1835, the Wesleyan Chapel has recently undergone renovation at a cost of £300, the work having been effected by Mr. Lear and Mr. H. Boon, builder and painter respectively, to plans prepared by Mr. Sidney Endacott.

REDRUTH.—Mr. Sampson Hill, Architect, has presented to the Board of Guardians his estimate for the new Infirmary at the Workhouse. The total estimate was £2,679. The special kind of sanitary appliances required by the Local Government Board had increased the amount.

SWANSEA.—A new Operating Theatre is about to be built at the Swansea General Hospital. The cost of same will be borne by Mr. Benj. Evans, J.P., of Swansea, he having made this generous offer to the committee to do so some weeks ago. The Architects are Messrs. Wilson and Moxham, of Swansea.

HALIFAX.—The foundation stone of a new Church Mission Room and Sunday School was recently laid at Plough Croft, in All Souls' Parish. The building, which has been erected from plans designed by Messrs. Jackson and Fox, is to cost, exclusive of the site, about £1,600. Accommodation is to be provided for 500 persons.

STOCKPORT.—Colonel Dixon, Chairman of the Cheshire County Council, on Friday opened the Agricultural and Horticultural School at Holmes Chapel. The school has been established by the County Council for combining sound technical instruction with practical knowledge of agricultural and horticultural work. The College has cost £10,000.

DUBLIN.—The Artisans' Dwellings which have been erected in St. Joseph's Place—formerly White's Lane—adjacent to Upper Dorset Street, Blackhall Place, and North King Street were formally opened last week. The buildings have been erected under the superintendence of the City Architect, Mr. C. J. M'Carthy, and the City Engineer, Mr. Spencer Harty; and the contractors were Messrs. Connolly and Son, of Dominick Street.

LEVEN (FIFE).—A large Hotel is proposed to be built near the station for the convenience of golfers and commercial men. It comprises dining-rooms, drawing-rooms, smoking and billiard rooms, and has 30 bedrooms. The street front has been designed in a classic style, and has a tower rising to about 90 ft. The buildings will be lighted by electricity. The estimated cost is between £8,000 and £9,000. The Architects are Messrs. Swanston and Legge, Kirkcaldy.

ISLEWORTH.—The Bishop of Marlborough has laid the foundation stone of the new permanent Church of St. Margaret. The iron Church proved too small, and a committee, with Earl Percy as president, has been formed to carry out the work of building a permanent place of worship. At present it is intended to erect the Nave and Aisles, with Baptistery, Vestry, &c., at a cost of £4,972. Messrs. W. Pattinson and Sons, of Whitehall, are the contractors, and Mr. Edward Monson, jun., the Architect.

ASHINGTON.—The Miners' Hall is to be opened on the 17th inst. Originally it had been intended to erect a building at a cost of about £1,000, but subsequently the scheme adopted embraced an outlay estimated to reach £6,000. It is a stone and brick building, with internal arrangements adapted for special requirements, one of the prominent features being a properly equipped theatre, which can also be utilised as a lecture hall. There is seating accommodation for 2,000 persons. The section immediately above the main entrance is apportioned for the transaction of routine business in connection with the local branch of the Miners' Association. The hall has been built from plans by Messrs. Boolds and Hardy, of Morpeth.

CRAIGNEUK, N.B.—The Free Church building, the memorial stone of which was recently laid, is situated on the north side of the road leading from Motherwell to Wishaw, and is to take the place of an old wooden erection. The new Church provides accommodation for over 500, with Hall and Vestry in the rear to seat 150. The style of architecture is a type of Gothic, similar to some of the early Scottish Churches. The roof will be of steel, encased in wood. This novel construction allows the introduction of a vaulted ceiling, which gives much value to the effect. The interior will be plain but comfortably finished. The Church will be heated throughout with hot water. The total cost, including furnishings and fees, will not exceed £2,150.

WEST BRIDGFORD.—The old Parish Church, dating from the thirteenth century, is now totally inadequate to the large population that has arisen round it, and a larger building has, therefore, become an imperious necessity, and strenuous efforts have been made during the past two years to raise funds for its erection. These have resulted in the accumulation of some £2,000. But at least £3,000 more will be required to cover the cost of the Nave and Chancel alone, which are all it is proposed to build at present; while the complete Church will cost not less than £9,000. The accommodation in the first instance will be for about 700 persons, but ultimately it is intended to provide seats for about 1,000. Doubtless a cheaper edifice might be erected if built of brick instead of stone, but this would make the incorporation of the ancient fabric in the new Church artistically impossible; and on antiquarian grounds alone it is most desirable that the old time-honoured sanctuary should be retained. The foundation stone of the new Nave and Chancel will be laid on the 28th by Lady Byron, of Thrumpton Hall. The Architect is Mr. Naylor, of Derby.

LLANDILO.—On Thursday an Intermediate School for Boys was opened at Llandilo. The building has been erected on a prominent site in the north-east of Rhosmaen Street, and overlooks the Vale of Towy, the Architect being Mr. David Jenkins, and the contractor Mr. David Evans, New Road, both of Llandilo. The walls are of local stone, with Box ground stone dressings. The assembly hall measures 45 ft. by 27 ft., which is capable of being divided into class-rooms 27 ft. by 22 ft. 6 in. Adjoining are two class-rooms 21 ft. by 120 ft., one of which is a chemical demonstration room, and on the first floor is a chemical laboratory 24 ft. by 20 ft., and a corresponding room of similar dimensions for the technical instruction. On the ground floor, under the above rooms, are the head-master's and assistant-master's rooms and offices, with space for future extension if needed. The school is at present arranged as for boys only, but there are convenient entrances and class-rooms on each side of the hall which will answer the purpose of a dual school. The playgrounds cover about an acre of land, which is enclosed by boundary walls. The accommodation afforded is for 130 pupils.

HARROGATE.—The new building in Cambridge Road and Chapel Street, Harrogate, which is being erected for post office purposes, and is rapidly approaching completion, was commenced in October, 1894, and it is estimated that the total cost, including the furnishing, will be over £9,000. The style of Architecture is Perpendicular. The building is constructed of Pateley stone dressings, and wall stones from Heaton Park, near Bradford. On the ground floor is the sorting office, 52 ft. by 43 ft.; adjoining is the postmaster's private office, and the public entrance for postal, telegraph, and other departments of office work is at the corner. Behind the public office is the telephone room. The whole of the first floor is set apart for clerks, operators, and others, and the arrangements for these are excellent. Nearly all the floors are laid with wood blocks, on concrete, and are practically fire-proof. Other rooms and apartments are provided with Edwards's adamantine tiles. The beams throughout the building are of steel from Messrs. Dorman, Long, and Co., Middlesborough. The inside of the public office is lined with silver stone paving from Messrs. J. Brooks and Sons, Hipperholme, as also the staircase and corridors where stone paving is laid. The plans have been prepared by Mr. Henry Tanner, of Her Majesty's Office of Works, Whitehall, and the principal contractors are:—For plastering, Messrs. W. Rule, Sunderland; slating, Messrs. Baines, Ripon; concreting, the Granolithic Company, Limehouse, London; wood blocking, Mr. R. Lowe, Farnworth; masons', bricklayers', and joiners' work, Messrs. Ives, of Shipley; painting, Mr. Hutton, Shipley; and plumbing, Messrs. Braithwaite, Leeds.

EDINBURGH.—The proposal of Mr. Cameron to acquire and include in the proposed City Chambers extension the area of the property situated in Cockburn Street, and at the corner of Warriston Close, at present occupied as licensed premises and stock-rooms of the Cockburn Hotel, has been adopted by the Committee of the Town Council. The new scheme has the merit of much better and more simple arrangement of the different departments and the public rooms, giving them more direct access, by means of the central hall, grand staircase, and main corridor. There are also more efficient arrangements for service staircases and passenger lifts. In the west wing of the building there is grouped the Council Chamber, a suite of rooms for the Lord Provost, and a large room for members of Council, with retiring-rooms. In the east wing, five large committee-rooms are placed. The Town Clerk's suite is placed facing the quadrangle, and his position is central to the Council Chamber, Lord Provost's room, and committee-room. The corridors are well lighted by means of open areas. The external Architectural treatment of the new buildings—the north front—is divided up so as to have a projecting central colonnade, with pediment central with present quadrangle, and this central feature is balanced in a symmetrical manner by two corner campaniles, while rising over the centre of the building is a well-designed dome. The north-west corner, which is occupied by the Council Chamber, is cleverly treated by itself, forming a striking part of the design, but at the same time not competing with the well-balanced side towers and central dome.

THE CASTLES OF THE THAMES.

WITH the solitary exceptions of Windsor and the Tower of London, the Thames-side castles have more utterly disappeared than even their neighbours the Thames-side monasteries. The reason for this loss is not far to seek, says Mr. Grant Allen in an interesting article in the Daily News. A castle was not so much a domestic residence as a military stronghold, the predecessor of the fort; and when once it was taken by a successful enemy, it was levelled lest it should again be used in the hostile interest. An abbey, on the other hand, was merely a "superstitious and foolish" monument, which might be stripped of its roof for the sake of the lead, and deprived of its sculptures and other "idolatrous" images in the interests of the weaker brother, while the mere shell might well be left standing as a quarry of building stone for more practical purposes, or converted by Inigo Jones into a gentleman's house for its grantee or purchaser. Most of our castles suffered severely in this way at four different periods. First, after the disorderly troubles of Stephen's reign, they were vigorously battered down by that strong asserter of monarchical right against feudal independence, Henry II.; then, during the Wars of the Roses, they were alternately destroyed by Yorkist or Lancastrian; next, when Henry VII. composed at last that long dynastic quarrel, the King's artillery enabled him to bombard the few belated assertors of half independent sentiments; finally, during the great Civil War, Cromwell's soldiers dismantled almost every castle that was held by Cavaliers in the Royalist interest. But during the greater part of the Middle Ages, the traveller who followed the river route from the Midlands to London beheld a long

SUCCESSION OF CASTLES

and fortified towns guarding everywhere the fords and bridges over the Thames. Taken in conjunction with the still more frequent monastic

buildings, these defensive works must have made up a constant architectural panorama for whose like we must go nowadays to Germany or Italy. It is difficult for us to remember at the present time that every important English town had once its range of walls set round with bastions and towers, like Lucerne or Boppard; difficult to recollect that castles scarcely inferior to Windsor, Warwick, Kenilworth, and Carnarvon, formed the nucleus of almost every important borough. The late mediæval traveller who approached Oxford from the north, leaving behind him the soaring pinnacles of Godstow Nunnery and the twin campaniles of Osney Abbey, saw facing him the walled city of Oxford, with its bastions of the pattern still preserved in New College Gardens, and its gateway of which Bocardo is now the sole existing truncated representative. In the foreground rose the stately keep and spacious courtyard of

Oxford Castle,

built by Robert D'Oiley in the reign of William Rufus, and celebrated as the refuge of the Empress Maud when besieged by Stephen. Every important ford or confluence of the river was guarded by such a fortress, and, as in the case of Oxford, each town has the word "ford" as a component part of its name to the present day. Nothing now remains of Oxford Castle, however, save a single tower, a portion of the crypt under the great hall, and the mound which supported the keep or stronghold. Proceeding Londonwards, by the side of Oxford, with its numerous monasteries, a traveller would pass the nunnery at Littlemore and the Preceptory of the Templars (or afterwards of the Hospitallers) at Sandford; after which he would look up at the woods of Nuneham, with the castellated manor-house which almost certainly preceded the existing mansion. A little later the towers of Abingdon Abbey would come into view. Gliding beneath the bridge, built in 1416, and catching a glimpse of its picturesque neighbour, Christ's Hospital, he would go on towards the conical earthworks of Sinodun Hill, and come in view of the great

Abbey of Dorchester.

Some way beyond Bensington he would behold in front of him the massive ramparts of Wallingford, another important ford over the river, guarded accordingly by its strong castle. Of this mighty fortress—comparable in its day to Arundel or Alnwick—nothing now remains save a tree-grown mound; but it was once a stronghold of great strength, and even in ruins moved the admiration of Camden. Wallingford is nowadays so sleepy and unimportant a place that we can hardly restore mentally the old walled town with its fourteen churches, enumerated by Leland, and its magnificent towers; yet the Conqueror thought it so valuable a post that he marched upon it at once before attempting to attack London, and was met here in submission by Archbishop Stigand and the chief thanes of Southern England. It was not till the period of the Parliamentary wars that the great fort was finally slighted. During the early Middle Ages, Wallington Castle had a rival just over the river at Crowmarsh—like the Cat and the Mouse of the Rhineland barons. When the Empress Maud, hard pressed by Stephen in Oxford Castle, let herself down from the walls by sheets and fled through the snow southward, she took refuge in the great keep at Wallingford with Robert D'Oiley's son-in-law, Brian Fitzcount. Stephen followed her up and built an opposition fortress just across the river at a place called Crowmarsh. No trace of it now remains, but the little Norman Church of the village belongs in its Architecture to the same period. Below Wallingford for a while the interest of the river was mainly ecclesiastical, as befitted the neighbourhood of a great abbey such as Reading. The nunnery at Goring and the manor houses of the abbots at Pangbourne and elsewhere, were the principal objects of interest on the banks till the picturesque old bridge at Caversham is reached with its central Chapel of the Blessed Virgin, like the one still standing to this day on the middle of the bridge at Wakefield, in Yorkshire. Thence is seen the abbey at Reading, the old town walls, and the Norman castle which held the junction of the Thames and Kennet. This

Castle of Reading

must clearly have been one of the strongest on the river, but the name of Castle Street is now unhappily its sole memorial. Below Reading, again, is the wealthy episcopal palace at Sonning, once itself the seat of a bishopric, and long the residence of the Bishops of Salisbury. Not a stone now remains of this splendid building, which Elizabeth coveted, and took "in exchange" after the Tudor fashion. The Pilgrimage Chapel of St. Sarac, at the same spot, is gone too, with many other ecclesiastical monuments of Sonning. Though Henley boasts itself "the oldest place in Oxfordshire"—whatever that may mean—it has no records of a castle; but no doubt it was surrounded by embattled mansions occupying the sites now usurped by Fawley Court and other similar riverside houses. But on the hills behind it rose the noble castle of the Greys, now greatly shrunken to the modern country house of Grey's Court. A few relics of this magnificent fortress still remain; the ground-plan can even now for the most part be traced, and shows it to have been a large square castle with corner towers, occupying the summit of a considerable hill. The next few reaches of the river are more remarkable for ecclesiastical than for military Architecture; they run past Medmenham and Bisham Abbeys, which must, in the height of their prosperity, have been graced with noble churches and girt round on every side with cloistered courtyards. More than one feudal hall, however, with crenellated battlements, more than one moated monastic grange, must doubtless have stood along the overhanging chalk ridge about Hedsor and Cliveden; while at Bray would be caught distant glimpses of the massive outline of the Round Tower of

Edward III.'s Magnificent Palace.

Between Windsor and Eton are almost the only two great architectural ornaments of the river which still remain to us tolerably intact—the one because it chanced to retain favour as a Royal residence; the other because, being a place of education, it escaped, like the Oxford Colleges, the deluge of barbarism which overthrew in its course the monastic establishments. The rest of the route Londonwards would include many other interesting objects especially at the period just before the Dissolution of the Monasteries — among them King John's half-apocryphal residence at Staines, the church and towers of the great Abbey at Chertsey, Wolsey's new Palace at Hampton Court, the ruins at least of Kingston Castle, the Carthusian Monastery at Sheen (as it was then called), and Henry VII.'s country Palace of Richmond. Finally, the traveller would see rising before him the towers and conventual buildings of Westminster Abbey, the old Palace of Westminster with Lambeth facing it, and, behind all, the walled City of London, capped by the turrets of old St. Paul's, and backed up at last by the Tower of London.

A new drinking fountain has been placed in Hyde Park, at the north-east corner of the Serpentine. The new fountain is of rather elaborate design, and has been executed for the Commissioners of Works by the sculptor, Mr. W. R. Colton.

Rich goldfields are said to have been discovered in Asiatic Russia. The expedition for the exploration of Kamchatka, under MM. Bogdandvitch and Lemiakin, has made a thorough survey of the district between Chumikan and Ayan, discovering some rich goldfields of considerable extent. Gold of a remarkably good quality has been discovered in 14 places in the volcanic strata on the banks of the River Aikashra.

The Queen's Hotel, Leeds, belonging to the Midland Railway Company is about to be considerably enlarged and improved. The plans are now completed. The enlargement will mainly be effected by erecting a new wing of four stories on the ground now occupied by the warehouse adjoining in Bishopgate Street. This portion will have an entrance on a level with New Station Street, and on the ground floor will be a large grill-room, stock and baggage rooms, lavatory and hair-dressing room. On the second, third, and fourth floors will be a number of sitting rooms and 42 bedrooms, with baths, &c. The interior of the existing hotel is to undergo great alteration. The entrance hall will be made larger, the commercial room will be extended, and the coffee-room will be made more commodious by including the adjoining corridor.

SOCIETY MEETINGS.

The Edinburgh Architectural Society.—The first meeting of the winter session was held in Dowell's Rooms, the President, Mr. A. R. Scott, in the chair; there was a large attendance. Mr. J. A. Morris, F.R.I.B.A., Ayr, delivered a lecture entitled "History and Art—A Florentine Outline," the first portion of which will be given next week. The lecture is said to have been one of the most brilliant and scholarly that has been listened to by the members of this Society, and was illustrated by a series of lime-light views of Florence. The Vice-President moved a hearty vote of thanks, which was seconded by Mr. J. N. Scott. At the close of the meeting the lecturer was elected the first Honorary Member of the Society.

The Glasgow Architectural Association.—A meeting of this Association took place in the rooms, 187, Pitt Street, on the 6th instant, Mr. William Tait Conner in the chair. Mr. Wm. Vickers read a paper on Architectural Sculpture, which we purpose giving at length in our next issue. He confined his paper entirely to Stone Carving, and made some introductory remarks showing the training necessary to make a successful stone carver. The indiscriminate mixing up of the different styles of Gothic was much condemned. The essayist thought that a judicious mixture of Gothic and Classic in sculpture work was a good thing. This was done in many parts of England, and drawings were hung round the wall showing where this had been successfully carried out in Sheffield Municipal Buildings. At the conclusion a hearty vote of thanks was accorded to the essayist.

Liverpool Architectural Society.—The first meeting of the present session of the Liverpool Architectural Society was held last Wednesday, in the Law Library, Union Court, Liverpool. Mr. G. Bradbury (president) delivered the opening address, which we are enabled to give at length in this issue.

Sheffield Society of Architects and Surveyors.—The members of this Society opened their winter session on Wednesday last with a conversazione in the Cutlers' Hall. Mr. C. Hadfield, the President, gave his Annual Address, which will be found in another column, and a very interesting exhibition was held of the works of Alfred Stevens as a designer and painter. Among those present were Professor Aitchison, President of the Royal Institute of British Architects, Messrs. R. W. Fowler, J. Fowler, C. J. Innocent, H. W. Lockwood, J. Smith, T. Winder, W. F. Hemsoll, W. C. Fenton, and Professor Habershon.

The Sanitary Inspectors' Association.—The Annual General Meeting of this Association was recently held at Carpenters' Hall, London Wall, Mr. H. Thomas (Bermondsey) presiding. The report of the Council referred to the work carried on during the past year, special allusion being made to the formation of several provincial branches. The membership, it was stated, was increasing, the number having risen from 295 last year to 525 at the end of the period under review. It was hoped in the course of time to enrol every Sanitary Inspector and Inspector of Nuisances in the United Kingdom as members of the Association. Then, and only then, would they be able to command the attention of the Government, and demand their just rights—namely, security of tenure of offices, fair salaries, and superannuation when incapacitated through old age and infirmities. During the evening, 23 additional members and two associates were elected, and Mr. W. W. West (Walthamstow) was chosen the Chairman of the Council for the ensuing year.

A better system of flushing the trough-closets in Leeds is felt to be necessary, and with a view to seeing an improved method in working order a deputation from the Sanitary Committee recently visited Sheffield. The trough-closets in that city are flushed three times a day, and the work is done automatically. In Leeds there is only one flushing daily, and a large number of men are employed to let off the water. In Sheffield, also, the lighting and ventilation are excellent.

Trade and Craft.

FOR EMPTYING CESSPOOLS.

In places where the cesspool system of drainage is in use, the work of emptying the receptacles for sewage is troublesome, while the cost is considerable. A new apparatus just constructed by Messrs. Merryweather, the London fire-engine makers, for the emptying of cesspools, gets over the difficulties in a novel fashion. A steel van is driven round and a suction pipe being dropped into the cesspools, the sewage is automatically forced into the tank by atmospheric pressure. This is done by first exhausting the tank by means of a special portable vacuum pump, and the work is performed quickly and cleanly, and at a cost about 75 per cent. less than that of the old system.

CONTRACTS FOR AUSTRALIA.

It is stated that the various contracts in connection with the construction of the works for giving a water supply to the Coolgardie Goldfields, West Australia, will be given out about the middle of October, and that nearly all the piping and steel girder supports for the aqueducts will have to be obtained from England. The cost of the works is estimated at £2,500,000, that being the amount which the Legislative Council of the colony has sanctioned, and the construction will probably take just over two years.

LIQUID FUEL.

Large reservoirs holding over 100,000 gallons have already been erected at Wilhelmshaven, and similar arrangements will be—if they are not already—made at Kiel and Dantzig, a credit of nearly £9,000 having been provided for this purpose in the last Budget, besides something like £4,500 for pumping plant in connection with the basins. After various trials, the authorities have decided to fit all existing large men-of-war with apparatus for heating their boilers partly with oil, and the use of liquid fuel will be provided for in all new constructions. The oil to be used in the German navy is a product of distillation of lignite, a lignite tar oil, called "masut," being a dark brown fluid of an oily nature. It will be stored on board in special tanks, from which it is conducted to the furnaces by pipes. It is ejected in a spray by steam, and yields a bright flame without smoke. Its heating power is superior to that of coal, it is more economical, and facilitates and simplifies the stokers' duties. Its effect is almost instantaneous, and the highest steam pressure can be immediately obtained. This is a great consideration on a man-of-war, and the absence of smoke is also a great advantage, more especially in torpedo-boats. A drawback is that the "masut" is very inflammable, and if a projectile should set fire to a tank the danger would be great; but it is considered that the advantages are such as to outweigh this objection.

MOTOR CARS.

The third annual international competition of motor carriages in France excited a great deal of interest. The number of entries for the first series was 27 for vehicles of two, three, and four seats, and in the other classes 13, comprising omnibuses and motor cycles. Steam was only used in one case, and electricity as a motive power was conspicuous by its absence, while in 32 cases the patents were the property of the British Motor Company. At the last competition, from Paris to Bordeaux and back, the petroleum car patents won all the prizes. It is quite evident from the entries that the French nation is settling down to petroleum as the motive power of the future.

PAVING CARDIFF STREETS.

A deputation from the Cardiff Shipowners' Association and the Chamber of Commerce attended at the meeting of the Cardiff Public Works Committee recently, to seek an abatement of the noise and dirt nuisance in Mount Stuart Square by paving the square and its approaches with wood or asphalte. The borough engineer (Mr. W. Harpur) said the cost of the work would be—for asphalte, £3,350; ordinary deal, £2,400; Australian hard wood, £3,600. After many expressions of opinion as to which was the best kind of pavement to use, it was eventually decided to put down asphalte.

NEW LIGHT RAILWAY.

The East Riding of Yorkshire is taking up the question of light railways. Kelham, a populous village near Driffield, intends to second the efforts of the Parish Council to obtain for the district a light railway, which it is proposed should be constructed, taking in along its route several villages from Nafferton to Filey, and making the line coterminus with those two places, which have stations on the Hull and Scarborough branch of the North-Eastern Railway. The Parish Council has already passed resolutions in favour of the scheme, and all the Parish Councils in the district and the Filey Urban District Council are to be asked to give their official support to the scheme.

WATERWORKS EXTENSION.

At a meeting of Bo'ness Town Council on Thursday, Mr. Thorburn, burgh engineer, submitted a report regarding a scheme for augmenting the water supply. The scheme includes the impounding of the water of the Kipps and Wardlaw burns to the south of Lochcote Mansion House, and about four miles to the south-west of Linlithgow. It is also proposed to construct a reservoir capable of holding 130 million gallons, and to lead a 10-in. pipe from this reservoir to join the present main pipe to Bo'ness at Carribber reservoir. The new reservoir will cover 28 acres of ground, and have an average depth of 20 ft., and the greatest depth will be 45 ft. The cost of the scheme is estimated at £11,000, irrespective of land claims and way leaves. The Council unanimously agreed to proceed with the scheme, and to make application to the Secretary for Scotland for a Provisional Order to carry out the work.

GLASGOW'S GAS SUPPLY.

The members of the Incorporated Institution of Gas Engineers during their autumn meeting in Glasgow had an opportunity of hearing a brief sketch of the history and extent of the gas supply of Glasgow. Gas was first supplied to Glasgow in 1819 by the Glasgow Gas Light Company, but no record of the quantity manufactured was kept until 1878, when meters were first introduced, and in that year the total quantity made was about 80,000,000 cubic ft. In 1843 this had increased to 217,000,000 cubic ft., and in that year the works of the City and Suburban Gas Company were erected. Both companies continued to supply gas in competition within the same area until the year 1869, when the Corporation acquired the works. In 1855 the quantity of gas manufactured was 593,181,000 cubic ft., the price per 1,000 cubic feet 4*s.* 7*d.*, and the total revenue £111,760; while this year (1896) the quantity manufactured was 4,811,884,500 cubic ft., the price per 1,000 cubic ft. 2*s.* 4*d.*, and the total revenue £605,794. The Corporation now supply an area 15 miles in extreme length and 9 miles in extreme breadth. The number of consumers is 171,628, and the price charged is the same over the whole area, 2*s.* 2*d.* per 1,000 cubic ft., while no meter rent is charged. There are five works within the area of supply—two small suburban works and three large works. The works now have a manufacturing capacity of 10,000,000 cubic ft. per day. One of the features of the works, of special interest to the visitors, was the huge gas-holder now being constructed, with a capacity of 5,000,000 cubic ft.

THE EXHIBITION AT THE CHURCH CONGRESS, SHREWSBURY.

Much of the space at the Exhibition of Ecclesiastical and Educational Art at Shrewsbury was taken up with books, &c., and still more with vestments and so forth. Unquestionably the best display, both in point of size and artistic importance, was that of Messrs. Jones and Willis, who showed stained glass windows and every variety of internal Church furniture and decoration. The catalogue issued by this firm is most comprehensive, and every taste can be suitably met, from the simplest to the most elaborate. "The sound of the church-going bell," though mellower and softer than is the rule, came often from the fine exhibit of Messrs. Harrington, Latham, and Co., of Coventry, whose patent tubular bells are coming into such wide use. Mural and other monuments, altar pieces, and stained glass form the subject of Mr. A. L. Moore's stall, and excellent photographs are given of some of the work done in his Southampton Row studios. Messrs. T. Thomason and Co., of Birmingham, have a large show of similar subjects, together with pulpits and lecterns, &c. Nearly opposite this exhibit, and very close to a fine model of Dr. Barnardo's village at Ilford, is the stand of Messrs. Hart, Son, Peard, and Co. of Birmingham and London, with some interesting specimens of art metal work. School and mission room furniture is shown by Messrs. H. Addison and Co., of Wellington, whose excellent catalogue is full of useful information. Messrs. W. and T. May, of Sheffield, and Messrs. West and Collier, of Hambledon, also exhibited school furniture, and Messrs. G. M. Hammer and Co. have a display of Church furniture and sundries.

BUILDING IN ABERDEEN.

The plans of the following new buildings have been sanctioned:—Additions in connection with Beechgrove House, for Mr. John Fyfe, per Messrs. Brown and Watt, Architects; dwelling-house on the south side of Walker Road, Torry, for Mr. James Massie, per Mr. A. Winchester, jun., draughtsman; alterations in connection with No. 136, Union Street, for Professor J. Campbell Brown, Liverpool, per Messrs. Matthews and Mackenzie, Architects; dwelling-house with shops, on the west side of Holborn Street, for Mr. George Bruce, per Mr. John Cameron, 45, Braemar Place; alterations and additions at No. 234, King Street, for Mr. John M'Rae, per Mr. John Rust, Architect; alterations at No. 30, Union Street, per Messrs. Ellis and Wilson, Architects; dwelling-house at University Road, Old Aberdeen, for Mr. James Anderson, per Mr. James Thomson, Belmont Street; two dwelling-houses on the east side of Hammerfield Avenue, for Mr. George F. Milne, Architect.

MESSRS. WEBB AND COMPANY'S TILES.

Modern taste for decorative treatment on an elaborate scale is exemplified in the recent internal rearrangement and ornamentation of the King Lud Hotel, Ludgate Circus. We find a considerable amount of good work scattered about the place, but unfortunately it *is* scattered. There is a painful want of repose; an evident lack of a properly thought-out scheme of general effect. The tile work and mosaics are quite satisfactory in themselves, having been carried out by Webb and Company, of Euston Road, under the personal supervision of Mr. H. D. Hibberdine. The tiles, however, good as they are in colour and design, suffer in effect from the novel mouldings of aluminium, which are intended to separate them from the large plate-glass panels forming an important feature of the decorations. The juxtaposition of glass, bright aluminium, and highly glazed tiles is artistically fatal. We think the Architect would have shown better judgment had he introduced mouldings in dark wood or darker velvet. As it is, we repeat, we came away with the impression of much admirable workmanship applied to an unsatisfactory result. The mosaic panels are particularly good in both design and execution—but the general effect of the decorative treatment is patchy and restless. We have too much gilt, too much glass, and more than enough of glare.

THE new Rustington Convalescent Home for the working classes of north-west London is now completed, and will be opened for patients in a few weeks. It has been erected by Mr. Henry Harben, Chairman of the Hampstead Vestry, at a cost, exclusive of land, of £30,000. The building, which faces the sea, will contain accommodation for 40 patients, most of them having separate rooms.

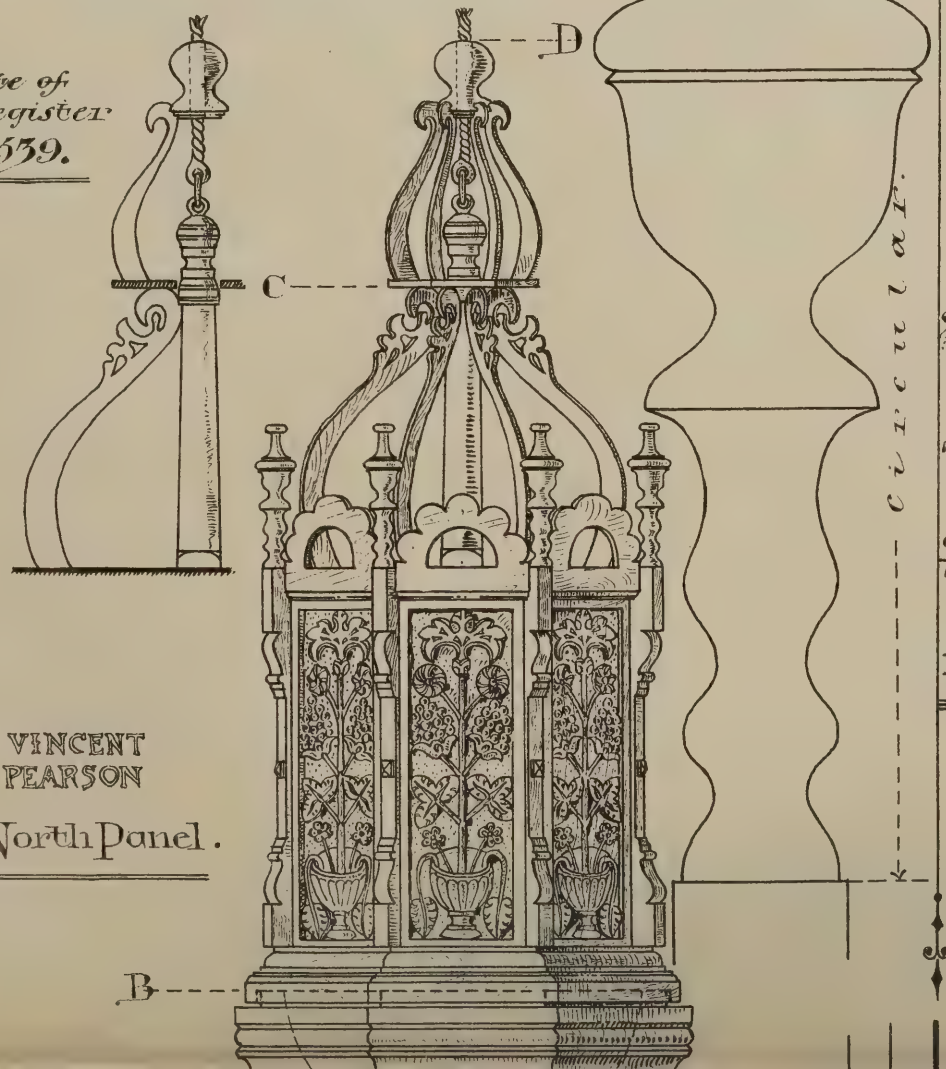
AT Berwick, the railway station stands on the site of the chief buildings of Berwick's once famous Castle, and a considerable part of the ruins of the great Border fortress are still to be seen close to the station itself. Some of the buildings near the station have recently been altered, and in the course of excavation there was found a prisoner's leg-iron. At one end is an 8-in. stout screw bolt for fixing to the wall. Attached to the bolt is a strong chain a foot and a half in length, and at the end of the chain is a heavy locked iron ring some 9 in. in circumference.

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Font & Cover, Kippax Church.

(About 9 miles S.E. of Leeds.)

Date of Register 1539.



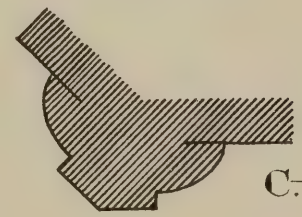
VINCENT PEARSON

North Panel.

Font & Cover, Fewston Church.

Date of Register 1504.

(7 miles W of Harrogate.)



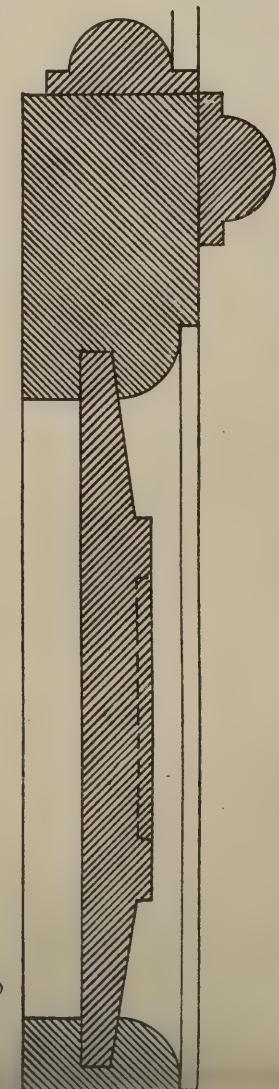
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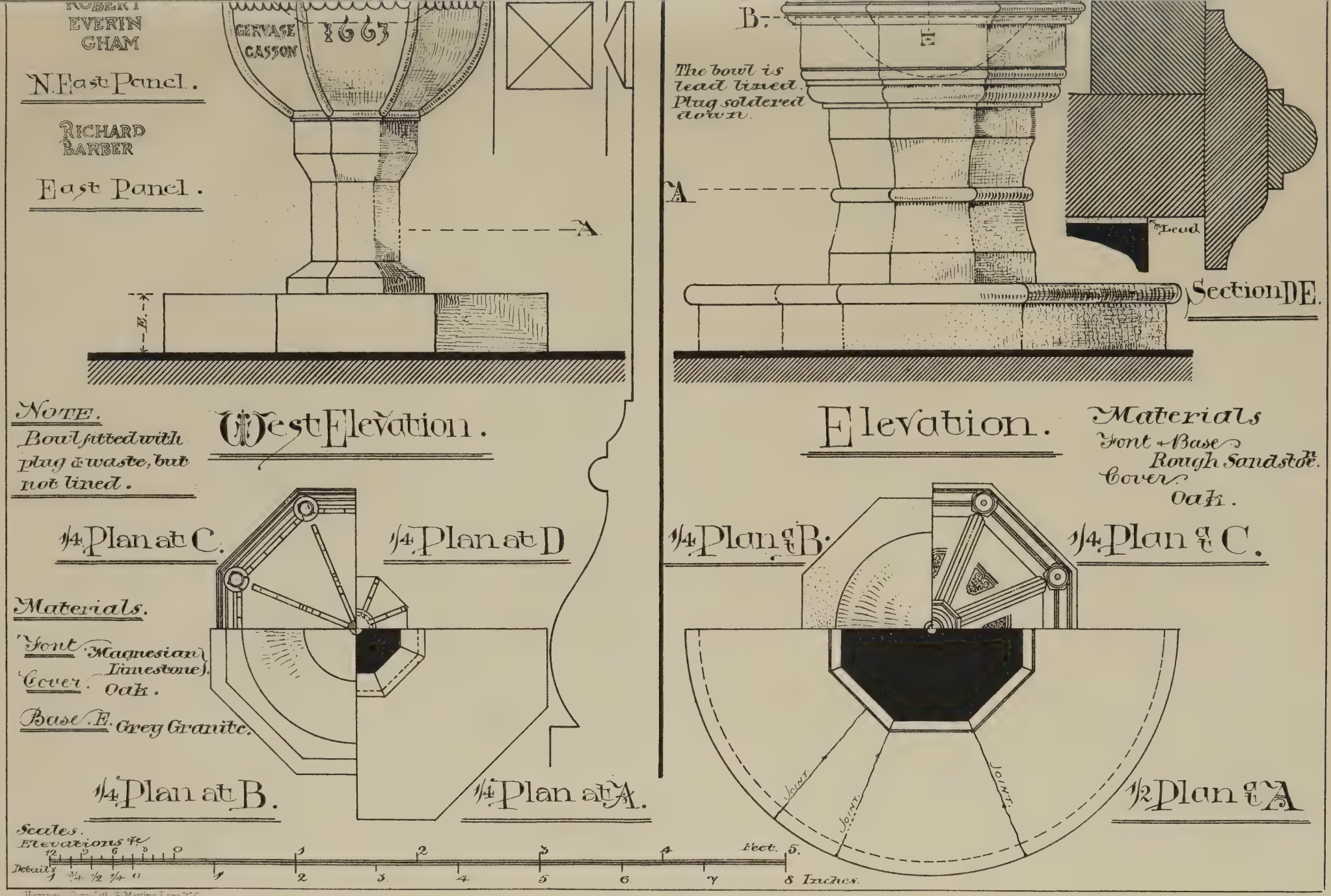
Curious Dates in Church-Yard.

"William Ridsdale, of Blubberhouse, died February 30th 1802"

"Joseph Ridsdale, father of the above, died February 29th 1823."







YORKSHIRE FONTS AND COVERS. MEASURED AND DRAWN BY FRED. MITCHELL, LEEDS.

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The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. IV., No. 89. **Wed., October 21, 1896.**

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Ruthless Destruction and Rustic Rights.

By a curious coincidence there reached us last week two appeals, at first sight apparently quite dissimilar, and having no connection whatever with one another, but on being more closely compared, revealed a curious and striking parallel. Both of them are sent from a Cathedral city, and both are directly connected with questions of moment to all Artists. The first, the one with which we are more especially concerned, relates to the proposed destruction—it is called restoration—of a portion of Canterbury Cathedral. No words of ours are necessary to interest all Artists in THAT. The second appeal, asking for help for the protection of Rustic Rights, comes from Winchester, and points out, in suitable language which we feel sure requires no endorsing, a new danger which not only threatens the loveliness of the lanes, but will alter the whole aspect of the beautiful country around that city. The parallel just mentioned, we need hardly point out, consists in the great affinity between the lopping and destroying of trees, and the lopping and destroying of Churches. The same unreasoning lust—the lust of destroying the beautiful—which is Vandalism, is apparent in both and in nearly an equal measure. We say nearly, because of the two Vandals, the unlettered man of the District Council—surely an eminent butcher!—intent on restoring his country lanes from their natural shaded state to the glare and dust of daylight, and the rapacious restorer of Churches, intent on producing something which shall chiefly glorify himself and swell his 5 per cent. Of the two, we say the former is possibly the least unpleasant. He, at all events, is acting honestly, and for what he thinks, in his blind and fatuous way, is for the public good. The other man—well, we will not waste words on the other man; but that respectable butcher of the Local Council, with his tidying up, cleansing and chopping ideas, is an almost exact counterpart of his more "cultured" brother at the Church. Beyond his chopper and his block he is unconcerned with the sights around him—to him they are not pictures, they are nuisances to be removed, something indeed, to be reduced to chips The trembling shadows of the tree branches on the roadside, varying with the wind, are nothing to him, nor is he troubled with any such ridiculou considerations of sentiment, on which one correspondent so foolishly dwells Such a thing as the relief, shelter, and shade these trees afford to the weary traveller, never occurs to his practical and businesslike mind, which is intent only on aping town ways. Argument is out of the question. If he were told, as perhaps our correspondent has already told him, that the cultivation of rural pleasures, which he is so anxious to curtail, may be helpful to the rustic's mental health, it would only have the result of opening his mouth the wider. Reason, therefore, we repeat, is of no use, force only must be used; to the beginning of the application of that force will be the formation of such a society as is indicated on another page, and which we cordially invite our readers to join. One word more with regard to the restorer. Personally, as we have said, he is not worth any, but the



SACRISTY OF S. M. NOVELLA, FLORENCE: A FRONTISPIECE BY GIOVANNI DELLA ROBBIA.

destruction he proposes is worth many a column, if it will have the effect of staying it. It is such things as historical associations, stones, eloquent with living memories of bygone days, the quaint outline of a building against a grey old tower, and the silhouettes of evening time, for which all artists care, and for which we write. But Vandalism brushes them away without a word or passing thought, and leaves nothing behind but the sighs and the somethings stranger—the curses of those he shocks. If, then, we are wholly in sympathy with our correspondent's energetic defence of Rustic Rights, we are equally as willing to pillory this last specimen of Ruthless Destruction, and to invite the aid of the Society for the Preservation of Ancient Buildings to crush it at the start.

DEATH OF MR. WILLIAM H. WHITE.

[SECRETARY OF THE R.I.B.A.]

WORD has reached us, at the moment of going to Press, of the death of Mr. WILLIAM H. WHITE, for a long time Secretary of the Royal Institute of British Architects. We were aware that Mr. White had been in failing health for some considerable period, indeed, a letter from him a while ago suggested to us that this illness might be the beginning of the end. Professor Aitchison held out little hope of his old friend's ultimate recovery some weeks back, but it was Mr. White's wish that little should be bruited abroad. Mr. White became a Fellow of the Institute in 1868. For eighteen years he had acted as its Secretary, and while there were points upon which professional men controverted his views, no one would question his conscientiousness or his love for Architecture—especially in its Archæological aspects, and the blade of professional controversy may well be sheathed at the graves' mouth. We would add our deep regret to the many expressions of sorrow which Mr. White's death will evoke. The funeral will take place at Nunhead Cemetery, on Thursday next, at 12.30 p.m.

TEMPLE CHURCH AND THE CHAPELS OF THE INNS.

WHILE the Halls of the Inns have been called their hearts, the Chapels have been described as their souls. More than seven hundred years have passed since the Knights Templars built their "Round Church" in the form of the Temple near the Holy Sepulchre at Jerusalem, from which they derived their name. There are only four other Round Churches in the country, viz., at Cambridge, Northampton, Ludlow Castle, and Little Maplestead. The mail-clad effigies in the Temple Church tell most eloquently, perhaps, its ancient tale. A peculiarity of six of the figures is that their legs are crossed. This is supposed to indicate that these Templars had taken part in the crusades. One of these figures is supposed to represent the great Earl of Pembroke, who, with his two sons, was buried in the Round. Among the famous men who found their last resting place within the precints of the Church in later times were John Selden, Edmund Plowden, the "Judicious Hooker" (at one time Master of the Temple), and Oliver Goldsmith. The Temple Church became the property of the lawyers about 550 years ago. The grant to the two Societies is kept in an old oak chest under the Communion Table. Each of the Treasurers has a key, and only in the presence of both can the chest be opened. Early in its history the Church was made a depository for jewels and other valuables.

IT WAS PLUNDERED

both by Wat Tyler and Jack Cade. The historians of the Temple owe the former rebel a special grudge, for he burned the records of the students, which were kept in hutches in the Church. One half the building belongs to the Middle Temple, the other to the Inner Temple, and each Inn has been careful to proclaim this dual ownership by a liberal display of arms on its own side of the Church. By the side of each Treasurer's seat is a long verger's staff, which is draped with crape whenever a Bencher dies. The staff of the Middle Temple is surmounted by a gilt lamb, that of the Inner Temple by a silver Pegasus. The Master of the Temple is appointed by Letters Patent, the Templar having been exempted from Episcopal jurisdiction by a Papal Bull, and this exemption has continued to the present day. The Reader, who is a kind of curate, is appointed by the Benchers of the two Societies alternately. The organ, which has undergone a thorough repairing since the beginning of the Long Vacation, was built in 1688 by the famous Father Smith. "The Battle of the Organs" is a familiar incident in the history of the Church. An organ by Harris, as well as Father Smith's, was placed in the Church on trial, and fierce and long was the dispute among the Benchers as to which was the better instrument. It was eventually referred to the notorious Jeffries, whose choice fell on Father Smith's organ, for which the Bencher's gave £1,000. Prior to 1842, when the Church was restored, the beautiful columns and shafts of Purbeck marble were covered with plaster, the Round was battlemented, and the north side of the porch was walled up. This was a restoration indeed as well as in name, for the present conical roof is more in accordance with the Norman style than the old battlemented Round. Neither of the other Chapels of the Inns can be compared with the Temple Church, but they are by no means devoid of interest.

LINCOLN'S INN CHAPEL,

which was erected 273 years ago on the site of an old Chapel built by the Bishops of Chichester some 300 years earlier, was designed by Inigo Jones. Its chief peculiarity is its elevation on a crypt—a style of Architecture of which few specimens remain in the country. The crypt, with its beautifully groined roof, is now railed in, but in the days of Butler it was used by lawyers as a parade, as was the Round in the Temple. A reference to the same custom is made by Pepys, who writes, "To Lincoln' Inn, to see the new garden which they are making, which will be very pretty, and go to walk under the chapel by agreement." Among the celebrated men whose gravestones lie in the crypt are John Thurloe, who lived in Old Square while he was Secretary of State to Cromweli, and William Prynne, to whose industry in preserving many public records history itself is indebted. In the porch are tablets to the memory of the Right Honourable Spencer Perceval, Miss Eleanor Louisa Brougham, and the late Lord Bowen. The Latin inscription on the tablet in memory of the late Law Lord was written by the Right Honourable George Denman, who was eminent as a Latinist no less than as a lawyer. Not even in the Temple Church are the stained glass windows more beautiful than those in Lincoln's Inn Chapel.

GRAY'S INN CHAPEL,

which is the smallest of the sacred edifices of the Inns, is adorned by no Architectural graces. Only the three stained windows, given to the Society by a grateful Bencher some thirty-five years ago, relieve it from the simplicity of a little village church. The exact origin of the building is unknown, but that it existed in the time of Henry VIII. is clear from an order of the Benchers for the removal of a painting of Becket in one of the windows. Not far from the present chapel is the site of the little chapel in which the ancient family of the Greys worshipped.

In consequence of the unprecedented demand for Specimens the Publisher regrets they are now out of print, and he would be obliged if all Architects possessing copies, and having thus been enabled to see the Specimen, would return such as may be spared. The postage will be refunded.

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LONDON CITY HALLS—STATIONERS' HALL.—By special arrangement the whole of Mr. JOSEPH PENNELL'S Pen and Ink Drawings illustrating the City Halls—never before published—will be reproduced as a Series of Articles. No. 1, Stationers' Hall.

GARGOYLES AND GROTESQUES. A Series of Articles, fully Illustrated, dealing with this most fascinating subject. Sketches for the Series by REGINALD BLOMFIELD, M.A., ARNOLD B. MITCHELL, F.R.I.B.A., JOSEPH PENNELL, G. C. HAITÉ, FRANCIS HOOPER, ANDREW N. PRENTICE, C. E. MALLOWS, and others. The letterpress by C. E. MALLOWS.

THE OLDEST CHURCH IN LONDON — ST. BARTHOLOMEW THE GREAT: Its Restoration. By ASTON WEBB, F.S.A., F.R.I.B.A., illustrated by Mr. ASTON WEBB'S original Drawings and Plans, showing the Restoration, with Mr. ASTON WEBB'S own Notes.

THE WORK OF NELSON AND EDITH DAWSON, Designers, Ironworkers, and Enamellers: Illustrated by themselves.

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WILSON, H.

CRANE, WALTER.
GILBERT, A., R.A.
HAITÉ, GEO. C., R.B.A.
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PENNELL, JOSEPH.
PENNELL, MRS.
WHISTLER, J. McNEILL.

AUMONIER, W.
DAWSON, NELSON.
DAWSON, EDITH.
VOYSEY, C. F. A.

ANDERSON, WM., BRITISH MUSEUM.
DUNN, WILLIAM.
HORDER, MORLEY.
INCE, HOWARD.
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THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

ARTS AND CRAFTS

AT THE

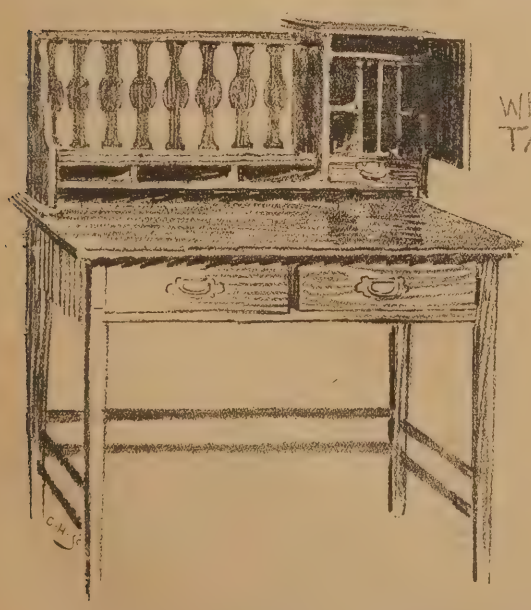
NEW GALLERY.

[BY OUR SPECIAL REPRESENTATIVE.]

WITH SKETCHES BY E. A. RICKARDS.

SECOND NOTICE.

A SECOND Visit to the New Gallery affords the mere Architect an opportunity for studying the more pictorial and decorative of the exhibits; but if he should wish to exhaust the list of things literally Architectural, he must needs mount to the gallery. If we mistake not, this will prove to him sufficient excuse for putting off, for an hour in the "Architectural Room" of the New Gallery, his critical inspection of Mr. Walter Crane, Mr. Voysey, and others, as represented in their many designs for wall-papers, hangings, stained glass, and other appurtenances. We think he will find it as interesting as that at Burlington House, though some sizes smaller, and wanting in examples of the perspective draughtmen so well known to him, who have become, since the days of the "Architectural Illustration Society," the only spectacles through which he has viewed his contemporaries. He must be hard to please indeed, if he be not compensated for these, by the very interesting examples to hand. Since when has Mr. Lethaby been evident at the Academy? Mr. Ernest Newton and Mr. Spooner, it is true, have shown us, by drawings hung there, some of the work they have now completed, and here illustrate by photographs; but would not the Academy gain somewhat in interest by admitting these very frames, and even such examples as the series of photographs of furniture by Mr. Arthur Simpson, of Kendal, or the wrought-iron screens by Mr. F. A. Walker, subjects that could scarcely be explained by the cleverest of draughtsmen.

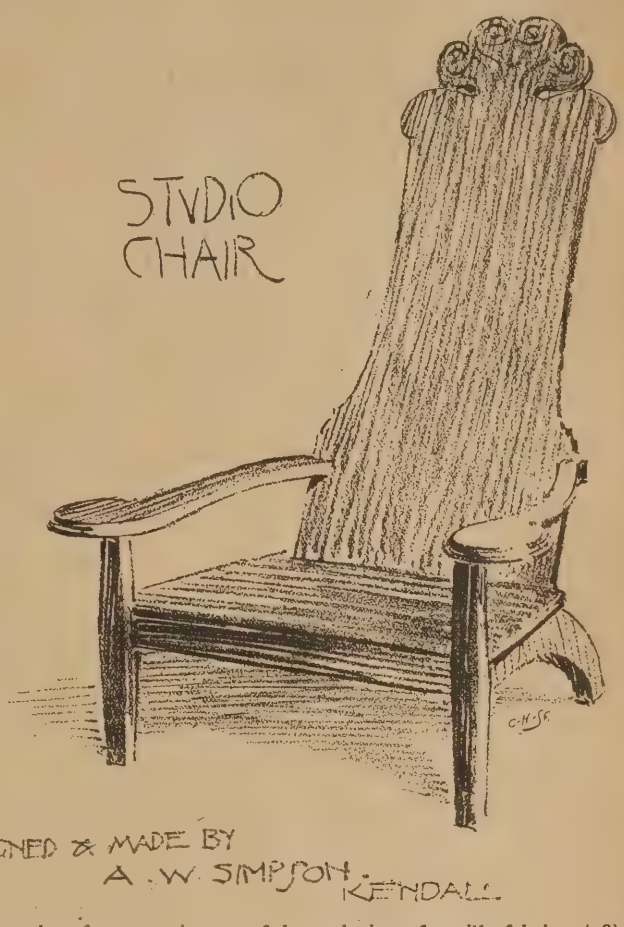


DESIGNED AND MADE BY A. W. SIMPSON, KENDAL.

Descending again, and passing to another class of work, first in order and importance is the South Gallery, containing the loan collection of Cartoons, and other decorative work, by the late Ford Madox Brown, including the famous "Work." To our modern notions, the small oil painting of the Death of King Lear, will perhaps be the first to appeal. To have given such an opportunity of studying chronologically the work of a man who was indirectly a pioneer of their present movement, is worthy of the promoters of this Exhibition. Certainly no more suitable occasion for showing these pictures could have been found. The centre of the room is occupied by cases of books and choice editions, notably from the Kelmscott Press, including several editions of the late poet's own works, Malory's "Morte D'Arthur," and the Kelmscott "Chaucer." These have already been issued, but for the sake of comparison are useful here. The "Altar Book," with illustrations by Anning Bell, and borders by Bertram G. Goodhue, exhibited by the Merrymount Press, Boston, coming after these seems almost incongruous in the matter of its several designs. We have grown to associate the illustration of Sir E Burne-Jones so intimately with William Morris' borders, that the more modern though equally decorative manner of Mr. Anning Bell, seems out of character with the accessories, which are in the 13th century style of those from the Kelmscott Press.

In the same case with this, the Chiswick Press show their edition of Spencer's Faërie Queen, with Mr. Walter Crane's illustrations. Some of the original drawings for these are at hand in the West Gallery and Balcony.

In the West Room, Mr. Crane predominates with his various cartoons for stained glass. He is distinctly at his happiest in No. 107, the Translation of Elijah, a companion window to the Translation of Enoch. Of this, we have unfortunately to guess the colour. Sir E. Burne-Jones in his four beautiful figures, Joshua, David, Esther, and Ruth, cartoons for glass, at Albion Church, Ashton-under-Lyne, is hardly fairly treated in the matter of hanging. Surely, in the treatment of single-figure subjects, he is still unapproachable. The figure of Ruth seems to us a perfect embodiment of the character. In 8 and 38, Messrs. Alex. Morton & Co. exhibit two of Mr. Voysey's designs for tapestry, of which we prefer No. 8, both in colour and form, the other, with its arbitrary lines of yellow doves, being in his most affected manner; but



in one of three designs for silk fabrics (98), he makes amends for anything.

The Needlework, by J. D. Batten, 'Psyche before Persephone" (No. 2), is among the gems of its kind here. The faces of the figures are formed with ivory, enhancing in a wonderful way the colours of the silk and the drawing for needlework is wonderful. Mr. Anning Bell has two of his delightful coloured Bas-reliefs in 47 and 40A, the latter consisting of three cherubs' heads in his well-known manner. On the opposite wall, Mr. Frampton's panel of "Music" should be noticed, though, in the matter of colour, it scarcely equals Mr. Bell's.

In the North Gallery, Mr. Voysey is again in his best vein, in his design for an Axminster Carpet, shown by Tompkinson & Adam, but in his panel for quilt (233), we cannot follow him in his intricacy. The end wall is entirely filled with three Tapestries, by Morris & Co. Two from the designs of Sir E. Burne-Jones, and one after Boticelli.

Mr. Walter Crane's Fig and Peacock wall paper and frieze is shewn in two printings, by Jeffery & Co., and well ensures his position as our leading designer of such patterns. Indeed, in all his work on this occasion, including his designs for damask, etc., his invention is undiminished.

Mr. Leon V. Solon is amongst the newer generation of his kind, but in his panels of Barbotine and Cloisonnée glazes (520, 515, 516) he makes a considerable bid for notice, that of "Le Printemps" being perhaps the most exquisite in colour and design; the flesh tints and conventional leaved drapery should be specially noted for its colour. The value of such panels as these, in combination with wood-work might be great, and suggest many delightful combinations. Mr. Leon V. Solon is another product of South Kensington, which this year is well enough represented by a trio of young ladies, whose work we noticed lately at the National Competition; Miss Eleanor Mercer who exhibits her model for a silver punch-bowl, Miss Florence Steele and Miss Lilian Simpson in

their designs for caskets. We were allowed to illustrate all these in our article on the National Competition.

These ladies fairly hold their own in this more important exhibition of maturer talent; what more can we say? Mr. Ashbee shews two large cases of metal work from designs by himself, executed by the Guild of Handicraft, Whitechapel; the objects vary from the smallest of brooches to a pewter pot, and no object that could have lent itself to his design seems to have escaped him. His best is exemplified in the gold and silver cups, and one or two of the smaller articles. No description is attached to the separate designs, and it says something for Mr. Ashbee's work that one has no difficulty in recognizing the nature of any single object. Of the other metal work to be seen, we notice many charming examples of Mr. Nelson Dawson and Edith Dawson, Miss Esther Moore, etc., on which we could dilate, did space permit. Indeed, this branch of Art, of all others, seems to flourish at the Arts and Crafts, and enough work of the best kind can be found to interest the student for days before he has exhausted its wonders.

We are enabled, by kind permission of its author, to publish this week a sketch of Mr. W. R. Colton's fountain, recently erected in Hyde Park, taken from the model in the Exhibition. We have little to add to the complimentary notices Mr. Colton has already received of his work. It has been said that it lacks an Architectural note, not even a moulding of any kind being present We think that some people have misjudged the apparent size and scale of the work. To our mind, Mr. Colton has relied on the conventional treatment of the basin and base under with its voluptuous yet enclosed lines to supply this, and taking into consideration the realistic half-length figure above, this is as near to an Architectural treatment as he could have well gone.

On page 166, we give an illustration of one of the beautiful designs for tiles exhibited by the Pilkington Tile and Pottery Company, Limited. Most of these designs are by well known men, and have considerable merit, more particularly that of Mr. C. F. A. Voysey.



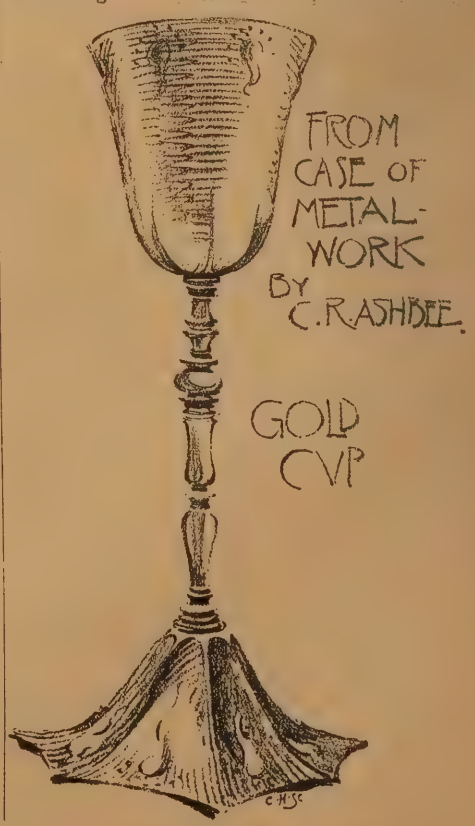
BY C. R. ASHBEE.



ARCHITECTURAL SCULPTURE.

By WM. VICKERS, SCULPTOR, GLASGOW.

ARCHITECTURAL Sculpture does not necessarily mean that class of work that relates to the human figure alone, but all manner of decorative carving, and as I am referring to stone principally, I use the term "Stone Carving," it being the most commonly applied term. Sculpture is really no better name, for it is used by many people, for the most insignificant work. The French do not usually apply the term Sculptor to the man who works entirely upon the figure, but *Artiste* or *Statuaire*, whereas all who work upon the ornament are called Sculptors; even Plasterers and Moulders, in that country have this distinction, so that the term of Stone Carving is not out of place. In explaining what should constitute a "Stone Carver," and how he should be educated, it is most essential he should have some Artistic taste. He must then undergo, what I am sorry to say is much neglected in this country, a thorough apprenticeship, five years at the very least. During this period the best use of his time should be made not only in Stone Carving, but in taking advantage of the admirable Art Schools that are now to be found in most of our large cities, firstly, in becoming thoroughly efficient in Drawing, and secondly, equally so in Modelling.



From my own experience, I contend that drawing must be acquired to make Carving a success, and to enable the Carver to read and understand an Architect's drawing, and so apply a sketch, if need be, to suit his decorative work to the

ARCHITECTURAL INTENTION.

Modelling is required to put in relief, and in the round, and so work out parts that drawing only would fail to convey. There are some people who deprecate so much modelling, I must say that I do not entirely agree with them, for, if it is anything that is required to be new or original, both in the application of figure and ornament, it is not only necessary for the Carver and Architect, but the safest and most successful way of executing work. In fact, I would go further and suggest a small scale, say an inch and a half to the foot, as a preliminary to the full-size model for important work. I think this method comes so much nearer the scale usually employed by Architects, that it would be a valuable assistance to them in judging scale in the work they were contemplating.

TO BECOME PROFICIENT

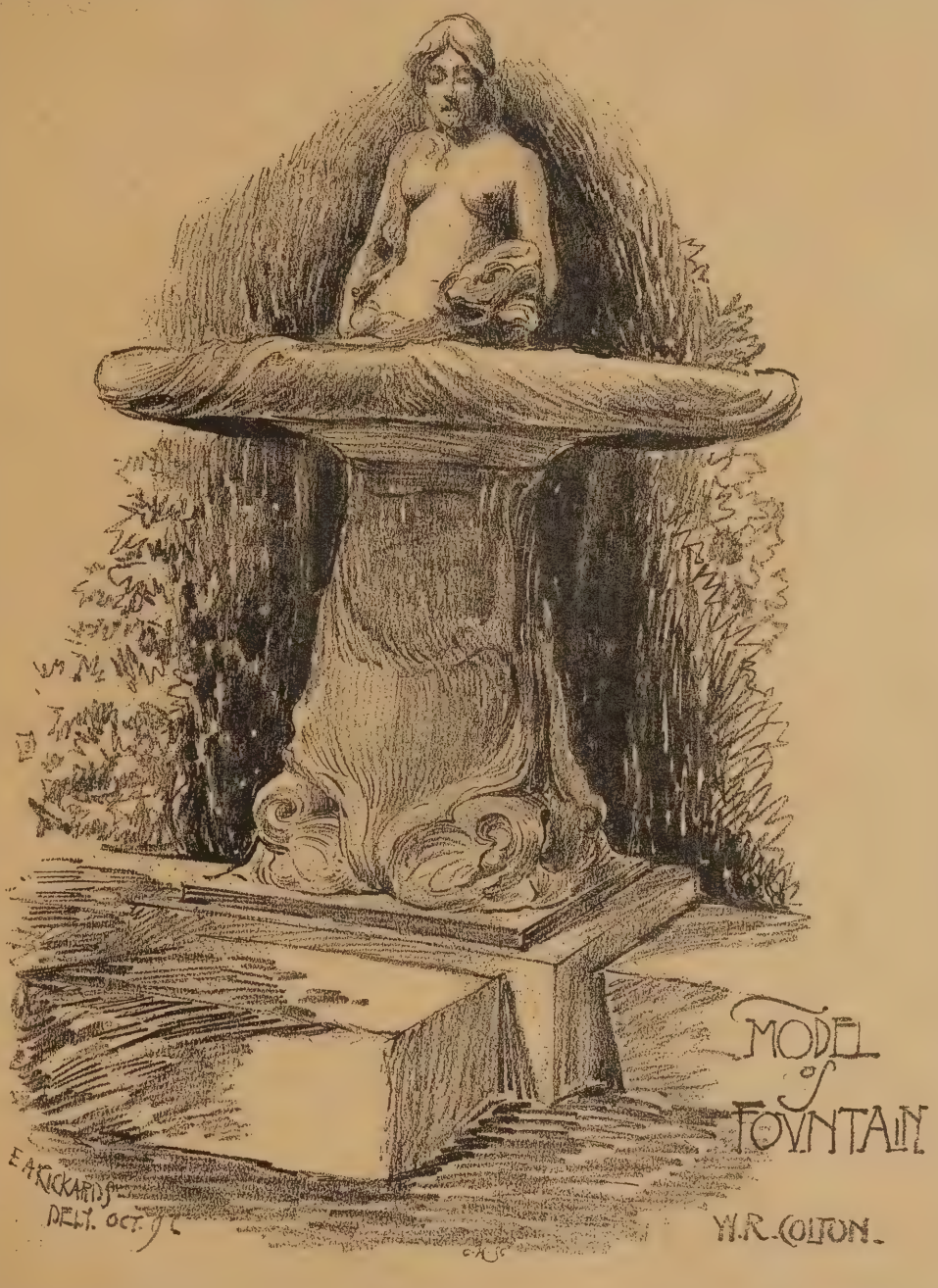
he must be an earnest student of Nature, for as life-studies are so necessary for working at the figure, so is natural foliage for ornamentation. There are the five orders, and the ornamentation that relates to each of them, and all the different phases of Renaissance springing therefrom. These are very numerous, French, Italian, Flemish, German and English, without taking into consideration the different Architects' views on the matter, for they very widely differ as to what is the particular treatment.

Take again the Norman period, though that is not called into question so much, but it is all-important to know what preceded that style of Architecture and Carving that made such an important era in English and also in Scotch work, namely Gothic. How much that name covers from the Norman up to the sixteenth century, and with what changes and variations! How is it when the question is to put to many Carvers, "What style is that building"? they answer "Gothic." They cannot discriminate between one period and another, and yet it is so necessary, if it is an Early-English building to apply Early work to it, and if it is Perpendicular Gothic to put that period of carving. It is not only the periods of Gothic that must be studied from old examples,

BUT PROPORTION AND ADAPTATION.

It is a very prevalent custom to leave plenty of rough stone for the Carver, and quite a common thing to see upon Architects' drawings "Rough for Carver," and the very observant Mason hails this with delight, as it is much easier to him to do this than work mouldings, or clean up the Ashlar. This is very good in its way to have plenty of material, but, do all Carvers know when they have too much? I fear not. I have seen label blocks left 9 or 10 in. square, and carved that size, where 5 or 6 in. would have been ample for the label mould, and finials double the size they should have been, and, when carved, out of all proportion, and many other features I might mention to show the necessity of study.

Lastly, a Stone Carver's study is never completely ended. Besides having a good insight into all the subjects mentioned, he must keep in touch with all the new developments that are continually cropping up, and sometimes emanating from Architects' offices, mostly new and original ideas,—what one Architect may like another will not favour. In reference to styles and the treatment of Stone Carving, it is not necessary to go into the Five Orders, but the Renaissance work and the infinite varieties, do call for a few remarks. I should certainly recommend that the work be of a much broader kind as being more suited to the stone that is used for building purposes; what I observe upon many buildings is the mistake of trying to copy work which looks well in marble where it originated, but looks very out of place upon sandstone, the details are much too small. If it is for inside work, and marble is the material used and low relief required, then by all means let all the beautiful specimens in Italy, or, if French, the period of Francois I. be followed, but for outside work these are not suitable. There is some very excellent work upon some buildings, and I think the most successful in Glasgow is that upon the Sun Insurance, by Mr. Lieper.



Of Gothic I cannot say that I am well pleased with the treatment the carvings get. Possibly I am a little too rigid in my views, but I must emphasize my resentment to mixing Early Gothic Carving and the Ball Flower ornament upon the same doorway or cornice. Late Decorative Crochets upon an Ogee label and an Early-English boss terminating this same label. These discrepancies should not occur in good Architecture, and it either arises from a want of knowledge or utter carelessness. In the case of Church Furniture or fittings, such as stalls, pulpits, or reading desks, that is another matter: I do not mind seeing these of another period, providing they also are pure and *unmixed*. It seems to me that want of a little more knowledge on the part of the Scotch Carvers into the details of Gothic work is much against themselves. This state of things could be remedied by making the mediæval work, not only the carvings, but also the

MOULDINGS A STUDY.

In England there is more elaborate work in the Cathedrals, Abbeys, and Churches than in Scotland. In Glasgow Cathedral there is some very excellent work. In the Chapel of Holyrood Palace I have noticed some very good work, resembling very much some of the English, and of the same period as the Cathedrals of England. I will mention York, Salisbury, Wells, and Lichfield for this purpose. I suppose it is not generally known that there is a great variety of treatment in the modelling of this work, each Cathedral having quite a distinct character, so much so that I have heard Architects say what particular type must be carved upon their buildings. Some prefer that of Salisbury, others Wells, and so on. The former is about as small as any I know, and the latter one of the broadest in treatment. I must mention here some Early English ornament that will be familiar to most Art Students, namely, the Stone Church spandrils, which are the finest that I know. These spandrils are continued in different designs all round the apex end.

Of transitional work in England, the finest is Bishop Bridport Monument, Salisbury Cathedral, South Hayling Church, and the Chapter House, York Cathedral. Some of this work is very interesting, showing the gradual change from the Early English leaf to the Early Decorated or Natural leaf, and yet having some of the character of both.

The finest examples in England of the Early Decorated period are at Southwell Minster, but there is also good work of this period at York, Selby and Lincoln. The Perpendicular Gothic is also very remarkable in England for its fine carvings — Henry VIIth's Chapel, Westminster, Oxford and Cambridge Universities, and numerous other places. One little gem I should mention is Bishop Alcock's Chapel, Ely Cathedral.

Following the Perpendicular period we have the Debased style, which has proved also to be a very interesting one to Architects and Carvers, also one

which has contributed a very great deal to what Architects have been trying to discover for many years—a new style. There is very good illustration of this mixture of Classic and Gothic of the late period in many parts of England.

There is another source with a foreign element in it, which I like, and it gives great scope to the Carver—this is the blending of the Flamboyant and Classic. The best of this that I have seen is at Chartres Cathedral and Rouen; it has not been worked upon much in Scotland. Mr. Washington Browne has favoured it a little, though it has been used in England very freely.

There is one point I must not overlook, and that is what I will call the Accidental; I do not mean by this when a Carver, making a slip, destroys his work, but what very often has become a feature discovered by pure accident. One instance of this relates to one of the great Architects of this century, the late George Edmund Street, in respect to the carvings in the New Law Courts. It appears that while Mr. Street was inspecting some model of Early English ornament, he pressed his thumb upon one of the rounded parts of the leaf, making a distinct indentation or hollow, quite different to anything else ever seen upon this ornament. The result evidently pleased him, for throughout the building this feature was adhered to, and had the name amongst the Carvers as the "thumb mark." Another case was at Mount Stuart House. Some three parts of the marble capitals in the large hall were carved, and on each of the four sides were depicted scenes from Æsop's Fables, hunting scenes, and all kinds of games. All this was suddenly stopped, and in the end an attempt was made to turn these subjects into natural foliage out of the material that was left. The result in most instances was wonderful; there were effects in the different massing obtained that could never have been thought of or arrived at if the capitals in their first stage had been started with the object of putting natural foliage alone.

[A paper read before the Glasgow Architectural Society.—ED.]

HISTORY AND ART.—A FLORENTINE OUTLINE.

BY JAMES A. MORRIS.

A KNOWLEDGE of history, like a knowledge of heredity, is one of those silent factors in the world's life, one of those iron keys which opens massive doors into still chambers; wherein strong men may look, and wise men learn. Real history is the comprehensive and impartial record of the past, and the knowledge of a nation's antecedents is as essential to a right understanding of the present or future, as is a knowledge of heredity to the well-being of the family life; and possessed of that knowledge one can the better understand the recurrence or development of hereditary traits, in the national or family life, whether of good or ill. Now the influence of heredity, is, I think, discernible also in the Arts; and in a measure goes so far towards the explanation of those recurrent Art periods, which seem so puzzling to the historian, but are they not puzzling just because so many histories are not comprehensive, in the sense that they unfortunately ignore Art, or if it be recognised at all, it is with scant courtesy, and much ignorance. The futility of this procedure is made further manifest, when one considers how much historical documents vary in detail, or present only one side of a matter, according as they have been penned by partisans or others: and in seeking justly to apportion these, it is worth while to remember how little we can assure ourselves of the real facts of political or social life, even of to-day; and if this be so, how much less are we able accurately to discriminate between the true and the false, in the more uncertain records of the past. Yet historians seem sometimes willing to rest content with such evidence, presumably for want of better; and all the while they have ready to hand, and disregard, incontrovertible facts in Architecture, Painting, and Sculpture, which, rightly interpreted, show more of the real life of a people, and of their faith, than all the accredited records and dogmas that ever were formulated. Let an artist study, for instance, the Elgin marbles, and in the end he will learn from them more of the spirit and culture with which Greek literature is pregnant, and of the Greek himself, than he will ever learn from written history; and it is surely as suicidal to exclude from the pages of history

ALL RECORD OF ART,

as it would be to exclude all literature. And further, all the material creations and surroundings of a people, down even to the meanest kitchen utensil, are of value, as showing how in simple fashion even the simplest of them lived. But the history of a nation, even as it is written, is not without use to the student of Art; for, interwoven with the rugged prose of the record of its life, he may discern the golden thread of beauty, and if he be only simple enough to hear and see the divine in common life, he may weave of the thread a gorgeous garment, transmute the dead bones into living flesh, and enrich his creation with the golden glow of a glorious sunshine, by the alchemy of his divine Art. Now while history, truly written, can record and punctuate the development of Art, and register and imprint artistic facts, it is yet but a truism



DESIGN FOR TILES BY MESSRS. PILKINGTON & CO., AT THE ARTS AND CRAFTS EXHIBITION.

to say, that history cannot create or even teach Art; for Art, like thought, cometh not with observation, nor at the will of man. None the less Art students may surely learn what history can teach; for while it is true that Art is beyond the call of man, it yet at many points touches man's inmost life, and is in turn influenced by it; and sometimes even, as with the Etruscans, it remains the most articulate voice of a people, long after the people themselves have passed away. In this sense Art surely then shows kinship to history, and history with Art has at least this in common, that the sub-structure upon which they both build is "Truth"; for without truth, history is but fable, and Art cannot be. If all this be so, wherein then can history be of use to, or become the exponent of Art? History is not, and never can be in any real sense, the exponent of Art; but history can tell us of the welding together of the different peoples out of which a nation is formed; it can show us something of its remote source, of its different strains of blood, and something too, hereditary or superadded, of the faith, thought, life, and work of a people. And while these in themselves will not enable us to know the individual artist, they will yet show us something of his race, temperament, and possibly thereby help us to get the closer to the individual man himself, and to the better understanding of his work. These things I can only imperfectly suggest. I cannot, of course, for a moment presume to teach. All I seek is to encourage any among you who may so desire, to dig with me in rich ground, each for himself, but in the spirit of real comradeship also, each helping the other. I wish, if I may, to suggest to you lines of thought, which you may afterwards, if you so choose, follow for yourselves, rather than to go again with you over the well-known paths. Rather would I, by personal inclination at least, seek to branch off into those pleasant little by-ways which lead from every road, for there, I think, one finds the sweetest flowers, and there, at least, one is more alone: and it is good sometimes to be apart from one's fellows, if only—as George Eliot makes gruff old Piero de Cosimo put it—that "we be not choked with other men's thoughts." Following then the lines of this general introduction, and applying them broadly to the inception and development of Florentine Art, we soon reach the incontrovertible fact, that the

GREATEST OF ALL ITALIAN ART IS TUSCAN;

and the crowning glory of Tuscan Art, the mother and sweet matron of it all is Florence, "the fair city of lilies." To know a little then of Florence and of its people, I propose that we first listen to history, for neither Florence nor her Art are of to-day, both are of the past, and Florence is a Mediæval city, and a city of the Renaissance. But long before even Mediæval days, Florence was a place of note. Situated at the confluence of the Arno and Mugnone, enclosed on either side of the long valley by fair hills, and born in a plain of white lilies, she rose like an Aphrodite from a sea of white foam; and although lying somewhat in the northern part of classic Etruria, she was yet cradled upon its only river of importance, and all the pure blood of the vernal Art of Etruria pulsed hotly in her veins; and ancient Fiesole, looking downward from her mountain height, but 3 miles distant, heard the birth-cry of the new city, and was the Etruscan sponsor of the child. After the Roman conquest came the deluge of Teuton blood, fierce, determined, strong, and heroic in its denial of defeat, and to my thinking the influence of Etruscan refinement, stimulated by the inherent energy and fierce capricious will of the Teuton, moulded and impelled the spirit of Tuscan Art. And note this further, that where Etruscan life and northern blood were strongest, there, too, in after days was purest and strongest Italian Art; and without the boundaries of these two united influences Italian Art was in comparison unknown. Beyond the boundaries of old Etruria there is Rome; but is not Roman Art, early perhaps as well as late, Roman only by virtue of its strength and power? From Umbria came Perugino and Raphael, but both were Florentine artists before Roman. All others of note she called from Florence.

HER CHURCHES WERE BUILT

and decorated by Florentine artists; her pictures were painted by them, and her buildings enriched with their sculpture. The Architects of Rome's greatest Church were almost wholly Florentine and wholly Tuscan; that is, if we except Raphael, who was only semi-Florentine, but who, after all, had really little to do with the building before Maderno, its first Roman Architect, had perpetrated his Nave, and so ruined Bramante and Michael Angelo's great design. Neither have Venetian or Lombardic Art the dignity and power of Florentine Art, and the former is redolent more of the East than of the West. Giorgione and Titian are sumptuous painters, but different is their Art from the serious sweetness of Giotto, the superhuman force and irresistible magnificence of Dante, the solemnity of Michael Angelo's Last Judgment, or the pictured sufferings of the damned. But although Tuscan Art is the most serious of all Italian Art, and in this may be again discerned its Etruscan heritage of gloomy religion and solemn awe, it is yet serious only in its deep joy, for its joy, like all lasting joy, is abstruse and grave. Classic dignity and refinement ever became Florence, and one is inclined to think that the

source of much of that dignity and refinement is also to be found not remote from its Etruscan origin. The very name of Tuscany itself is but the continuance of Tusci or Etrusci; the old word still lingers in the land, and with it much else besides that is of value, more even than we perhaps surmise. Etruscan power was greatest in the sixth century B.C., but in the third century B.C. it became subject to Rome, and Signor Melani holds that the "Architecture of Rome itself was grafted upon Etruscan work, and had acquired a character of its own prior to the

EXERCISE OF GREEK INFLUENCE."

If this opinion be well established, and it seems a reasonable one, then it is a statement to be remembered. But Etruscan influence is not the only influence apparent in the moulding of Florentine Art, for it must be remembered that Florence lay also immediately on the direct road from the north to Rome, and as by this road from the passes in the Carnic Alps, surged in succession those waves of barbaric invaders, whose hosts for centuries overran the land; so in this influx of Teutonic ancestry we find the second, as I think, of the two great influences apparent in the moulding of Tuscan Art; for the impress of the Teutonic mind and character is marked most unmistakably in the Tuscan people. And in those terrible centuries of coalescence, for the "Italian people" it has been well said "is made up of the people of every nation Rome ever conquered, or that ever conquered Rome"; in those grim centuries of Roman decay and rottenness, of alternate craft and fighting, when war, pestilence, desolation, and famine, walked with the Goth rampant in the land, the unrecorded history of Florence must have been eventful enough. One destruction of the city at least we know of, that by Totila during his wars with Justinian's generals, and then it was "embellished with those sure indications of Roman wealth and luxury, baths, theatres, and aqueducts." But long before Totilas's time, the Teutons had crossed the Alps and seen for themselves the beauty of the Cisalpine plains. As early indeed as A.D. 180 they had measured swords with the Empire and been worsted, but on August 9th, 378, the old and the young world again tried their strength, and this time the young world prevailed. But Italy was not theirs, nor yet to be, till Alaric had fought and been defeated, and fought again and conquered, in his famous campaigns of 400–415, and then for the first time the fair land was laid at the foot of the Goth, and the unflinching hand of the hardy northern race crushed even Rome itself in its terrible grasp. Meanwhile, during Alaric's wars, we get a glimpse of Florence, for another hero, Radagast by name, trying for Rome like Alaric, and by the same road, sat down in 405 before its walls, and there with his 200,000 German followers wholly perished. Attila, whose barbaric boast it was that "grass never again grew where his horses' feet had trodden," had his share in the terrible drama. Then Odoacer, the giant Herule, followed only by his brother, went into Italy, and in 476 became its first German king. Then came Theodoric, the mighty Ostrogoth, and fought with Odoacer for the kingdom. It reads like a saga, how that great Amal had at Constantinople been granted, with much craftiness and ceremony, the kingdom—if he could but take it for himself—and how he gathered his heroes from many tribes, and marched and fought and conquered, he and his heroes; while with them as with all Teuton hosts, just as with our own colonial pioneers, went "their wives and their little ones, and all that they had." We read how they crossed the Alps by the old passes, white with snow and bleached bones, "while icicles hung upon their beards, and their clothes cracked with frost"; and then down they went into the sunny plains. And we are told how on the morning of his great battle, Theodoric asked his mother, who had been with him in all his wanderings, to bring him a bright mantle she had embroidered for him, and put it on over his armour, so that all men may see "how he goes gayer into the fight than ever he did into feast"; and that she, his mother, may see "whether she have brought a man-child into the world, or no." Now you must not think that all Goths were wanton

DESTROYERS OF EVERYTHING BEAUTIFUL.

Far from it; but war is a rough mistress, as many an old world city has often found. Theodoric was a wise ruler, a just man, and a great builder. Venice, Ferrara, and Siena were amongst the cities founded by him, whilst Florence, besides many others, were enlarged; and this Goth not only built, but he set his face hard also against all destruction and laboured to preserve such ancient monuments as remained in the land. Kingsley, whose book you should all read, regards him as the founder of Byzantine Architecture in Western Europe. I wish time allowed me to tell you of all the succeeding mighty northern fighters who had their try for the land. How Tiea fought and died hard; and Alboin, then a young princeling seeking adventures, and not much caring with whom he fights so long as they fight stoutly and well, fought against Tiea. But the day came when this Lombard prince himself now become a great leader, entered once again the land, and this time at the head of a great host. Not as before came he to blindly fight brother against brother, and so work the Romans' will. This time he comes to conquer the land for himself, and so once again and for the last time are Roman and Teuton face to face. Duplicity of some kind there was, but whether sent for or no the Lombards came. Through the old passes they poured into the war-worn land, where there were none now strong enough to say them nay; and so on Easter Tuesday in the year 568 the land was invaded by the old foe, and for the last time; for the incomers went not away again, but stayed, and gave to the northern plains their own name. And now but one story more, and I have done with history. Alboin, the mighty warrior and fierce prince, the final founder of the Italian people, died by his own sin. In a fit of drunken revelry, he forced his wife, the daughter of Cunimund, his old foe, whom he had made his bride, to drink before all a draught of wine from a goblet made of her father's skull. Fierce and barbaric was the deed, and fierce and foul was the revenge; for by the sin of her own body she achieved her lord's murder, and so herself also passed unto a wicked end. Now, do we the better understand the seven devils of the Goth, and their desire also to do great deeds and encompass great ends? Or do we, in a few centuries afterwards, recognise in a modified form, with chastened temper and controlled will, the spirit which animated the Free Republic cities of Italy? Although with at first a mania for destruction, the Lombards in the end became great builders, but they brought no complete Architecture with them from their northern home, and whatever knowledge of building they possessed paled before the work they found in the land, but the gloom of the northern forests, and the weird myths of its shades, they worked into their fantastic ornamentation, and its stern spirit into the Architecture which afterwards bore their name. Florence must have been again destroyed, for Charlemagne is its reputed rebuilder; and thereafter she began to recover something of her lost prosperity. Before the ninth century she was permitted to surround herself with walls and fortifications, and when Otho I. was in 962 crowned king of Italy, she, for the first time, received the rights of municipal government.

(*To be continued.*)



LOGGIA OF THE BIGALLO PALACE, FLORENCE. ARCHITECT UNKNOWN. ERECTED ABOUT 1351.

MESSRS Christie are again adding to their premises, and are now occupied in rebuilding the house to the eastward of their portico in King Street.

AT a recent meeting of the Birkenhead Town Council a resolution of a sub-committee to purchase the Wirral Waterworks Company's undertaking for the sum of £260,000 was defeated by 38 votes to 6.

AN inquiry was recently held by the Local Government Board at the Town Hall, Newport, as to an application by the Newport Corporation to borrow £2,150 for paving public footpaths and carrying out other improvements.

MR. R. A. EASDALE, A.R.I.B.A. (head assistant to Mr. Arthur Hartley, C.C., Architect, Carlton Chambers), has gained the silver medal and a prize of five guineas offered by the Leeds and Yorkshire Architectural Society for the best set of measured drawings of any building erected anterior to the seventeenth century. Mr. Easdale selected the interesting Norman Church at Birkin, situated about three miles east of Ferrybridge.

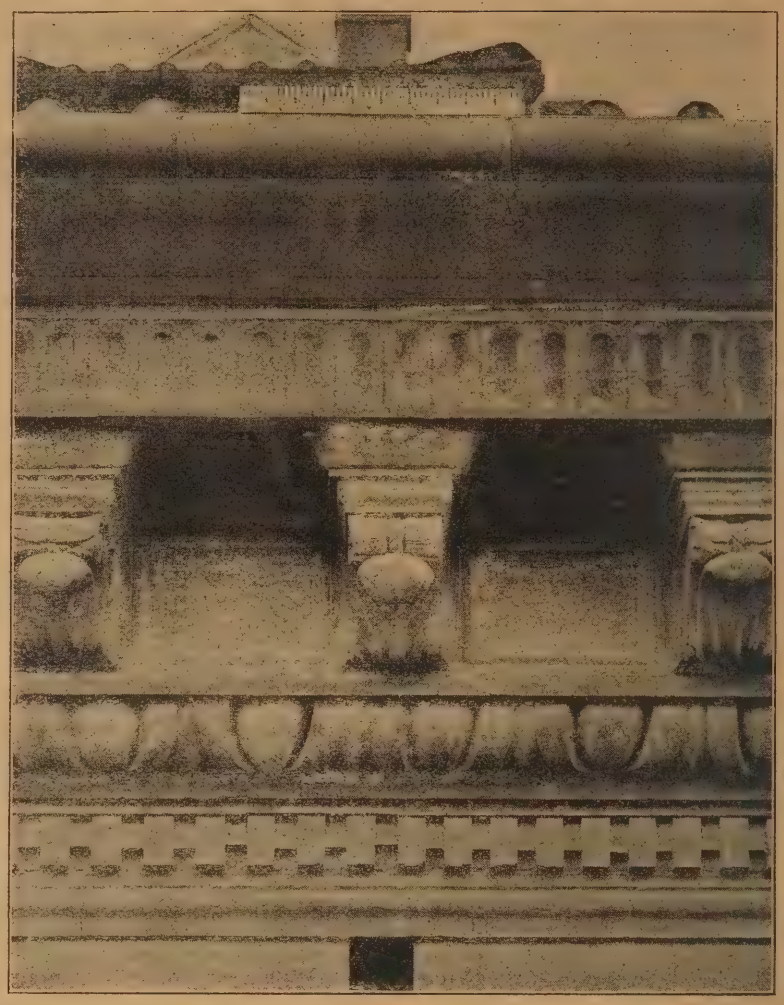
Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
October 21st, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

MR. HOLMAN HUNT'S paper delivered at the Church Congress, on "Christian Art," is somewhat disappointing. What he said was very good in its way, but it was not new. His quotation from Dean Stanley criticising the trivial decoration of Roman altars on the Continent is not fresher than his story of how the Bishop of London, in 1774, refused the offer of Sir Joshua Reynolds and Sir James Barrie, of their gratuitous services for the decoration of St. Paul's. Decoration, said this Episcopal Philistine, meant desecration. So St. Paul's had to wait nearly a century and a quarter for the introduction of colour into its too cold, grey interior. Neither is it a very striking observation that for Churches, Gothic has superseded all other forms of Architecture, It is true, but it is trite. What we wanted from Mr. Holman Hunt, some of whose pictures already decorate our Churches—his "Light of the World" hangs in Keble College Chapel, at Oxford—was as to the best lines upon which to proceed, whether in regard to mere decoration or the exhibition of pictures. His eighteenth-century Bishop of London still represents a large amount of Puritan feeling in the Church. There is the old story, newly told, of the supporter of the revival of ecclesiastical Art, who asked an ultra-Protestant "Surely you admit that Art is the handmaid of Religion?" "Of course I do," was the reply, "but I want Religion to give Art a month's notice." Yet Art can suggest ideas and provoke high emotions as well as literature, and more abiding often than the literature of the pulpit. Are they not "placarding moral posters" in Paris? That is making Art the handmaid of Ethics. A Mosaic, inspired by Mr. Watts' "Time, Death, and Judgment," is exhibited in front of one of the most famous Churches in the East End of London. The question of the employment of Art in both Church and school is a somewhat difficult one, and the only dominant idea we discover in Mr. Holman Hunt's paper is that Art in Churches should be controlled by artists, which was aforetime a paradox, but is now an axiom.

TWO of the most unique works of art in the whole of South America, if not in the world, have been destroyed by the great fire at Guayaquil. They were a couple of large frescoes flanking the altar in the principal Church. On one side was shown the Return of the Prodigal Son. The Prodigal was attired in the tattered remnants of a full-dress suit of the days of the Regency, gilt-buttoned dress-coat, black satin breeches, silk stockings, frilled shirt, and chapeau Bolivar. He was being welcomed by his father in like array, and by his mother and sisters in short-waisted, short-skirted gowns of embroidered muslin and sandalled slippers, to a mansion richly furnished in Empire style. The subject on the opposite side was the Sacrifice of Isaac, who was garbed as a mediæval page, whilst Abraham, in a furred gown and plumed hat, was preparing to take his life, not with a sacrificial knife, but with a gigantic blunderbuss, a genuine trabuco. It is to be hoped that photography has preserved the memory of these matchless art treasures, which, notwithstanding their eccentricity, were by no means badly drawn, though somewhat crudely coloured.



FLORENCE: DETAILS OF CORNICE OF THE RICCARDI PALACE BY MICHELOZZI.

AT the Leeds Art Gallery, the Winter Exhibition, is this year confined to the works of J. M. W. Turner, R.A. Mr. H. Bendelack Hewetson's collection of engravings, mezzotints, &c., from the artist's works, provides the principal part of the exhibits and consists of nearly a thousand prints. The trustees of the National Gallery have loaned about fifty water-colour drawings and two or three oil-paintings. The committee are also under obligation to Sir Donald Currie, who has lent a series of vignette water-colour drawings. Turner lived in an ideal world, seeing things as in a dream; he was a poet, and his work will be admired till the paint fades, and even when that unhappy time comes the translations which the etchers and engravers have made from his drawings will perpetuate his memory. Some of his painting has already lost its brilliancy, and this unfortunate circumstance makes the prints so valuable. The pictures from the National Gallery have been selected by Mr. Wm. White, of the Ruskin Museum, Sheffield, with the view of showing the maturing of the artist's powers. In his youth, Turner used to put in backgrounds to architectural drawings for architects, and the first drawing of the series, "Radley College, near Bedford," was apparently executed in this way. One of the most pleasing drawings in the collection is that of the "Glacier, with fir trees, Mont Blanc," which gives some idea of the vigour which characterised a good deal of Turner's work. "Abbey Ruins (Kirkstall Abbey)" will, no doubt, prove of great interest, but how different are the surroundings of the Abbey now. This is a small sketch, but it well repays examination. Turner was ever an idealist, and the two drawings of Lake Lucerne show him in this light. There is in them exquisite harmony of colour, and they are otherwise charming. The same may be said of the "Landscape with River," a sweet little sketch in oils, perfect in tone. The burning of the Houses of Parliament was a subject which afforded Turner scope for the exercise of his powers as a colourist. A drawing of the scene is in the collection, and it is one of the most pleasing. The flames from the burning pile are shooting upwards, illuminating the dense mass of the people in the foreground, and the adjoining buildings. Turner was happiest when dealing with atmospheric effects, and there are a number of such drawings in the collection.

LAMBETH will soon possess the largest single swimming bath in Europe. This will form part of the structure which the vestry proposes to erect in Kennington Road, of which the foundation stone was recently laid. The new building will be the chief of the series proposed to be erected in various parts of the parish. The superficial area of the site amounts to 33,330 ft., and the total estimated cost is £55,000. The structure itself will cost £33,747, and the general accommodation will be a first-class men's swimming bath, 142 ft. by 56 ft., men's second-class swimming bath, 98 ft. by 42 ft., women's swimming bath, 64 ft. by 40 ft., 65 men's private baths, 30 women's private baths, and public wash-houses for 64 washers. The first-class swimming tank, which will hold some 250,000 gallons, has been specially adapted for letting, during the winter months, for purposes of entertainment, and the hall, when thus arranged, will be entirely shut off from every other portion of the establishment, affording seating accommodation for 1,522 persons.

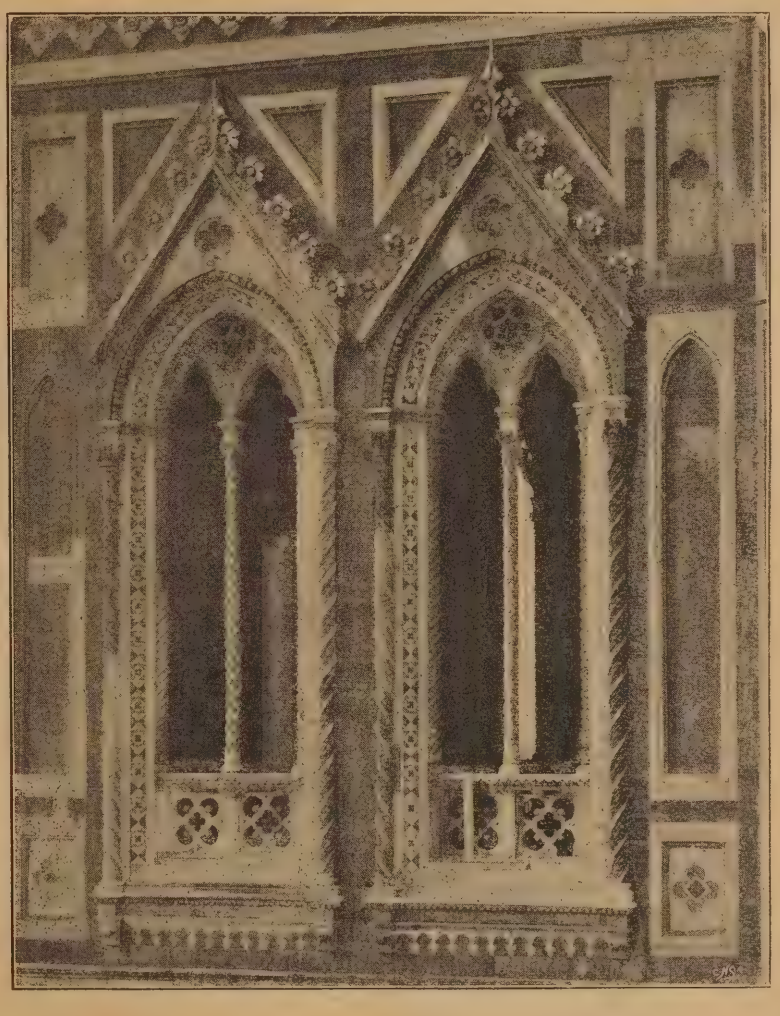
MANY suggestions are put forward by members of the City Corporation to celebrate the completion of the sixtieth year of the Queen's reign. An address will naturally be presented, and possibly a commission will be granted for the preparation of a suitable gold casket to contain the parchments. One suggests a substantial sum for the building of an Art Gallery worthy of the City. A site on the Embankment might be chosen, he thinks, and a building erected upon it fit to hold not only the works of Art the City now possesses, but those that it is certain will be offered when a gallery deserving of the name is a matter of fact. A second suggestion is that an effort should be made to complete the frescoes in

the Royal Exchange. Several additions have already been promised, so that the completion of the work would not involve a very heavy expenditure. A third suggestion is that the Court should establish a certain number of "Royal" scholarships in connexion with their various schools, more especially the Girls' School and the Freemen's Orphan School.

MR. HOWARD CARTER, the Artist of the Egypt Exploration Fund, has gone to Cairo, whence he will proceed to Thebes, to resume his work of copying the scenes and inscriptions found on the ruins of the Temple of Deir el Bahari, for the illustrations in the publication of the Fund. Mr. Carter hopes to finish this work in two more seasons. Professor Flinders Petrie, who is going to Egypt later on, returns this winter to the Fund, which he left in 1885, and will have the conduct of the excavations on its behalf in place of M. Naville, who has for so many years been the director of the explorations. It is intended, during the forthcoming winter, to roof those parts of the ancient temple which are exposed. The work will be done under the supervision of Mr. Somers Clarke, the Fund's Architect, especially with a view to the preservation of the brilliant colouring of many of the scenes, which, if left as at present, would undoubtedly be bleached by the action of the sun.

AT a special meeting of the Liverpool Vestry, held last week, the question of workhouse accommodation was discussed, and Mr. Hagger, the clerk, read reports and exhibited plans which had been sent in by three Liverpool Architects, Messrs. Edmund Kirby, Henry Hartley, and W. E. Willink. In his report Mr. Kirby submitted three alternative schemes for the adaptation of Brownlow Hill Workhouse as a hospital. The first left the buildings in outline exactly as at present. The interior was similarly treated. Under this scheme, however, accommodation for the numbers asked for could not be reached. The estimated cost of this scheme would be £12,000 to £15,000. The same Architect's second scheme, which was estimated to cost about £45,000, provided for considerable alterations to the existing building, new pavilions, and other additions. His third scheme provided for the removal of the 600 sick infirm inmates to Kirkdale, leaving the Brownlow Hill buildings, when altered very extensively, as a hospital pure and simple, except for the parish and relief offices retained there. The cost of this scheme would be about £15,000. Mr. Hartley, in drawing up his report and deciding upon his plans, had kept in mind the utilisation to the fullest possible extent of the buildings existing, adding such other structures as might be necessary. The present workhouse could be so arranged as to accommodate 1,724 sick, and 400 healthy inmates, and, in fact, become a huge hospital. Besides removing the third floors of the buildings so as to give increased ventilation and light to the surgical wards, and affecting other alterations, he proposed to erect new pavilions. £25,000 would approximately enable the Vestry to effectually carry out the work included in his report. Mr. Willink's report suggested the entire removal of the parish offices in Brownlow Hill to another situation, probably near other public offices in the city. Considerable alterations and additions to existing buildings were also proposed by this gentleman. One important feature of this scheme was the proposal to include the erection of a maternity hospital, in which there would be 57 beds. The total cost the Architect estimated at between £53,000 and £54,000. It was resolved that the reports be printed and distributed to the members, and sent to the Local Government Board for them to decide. The further consideration of the reports and plans was adjourned to a future date.

IN reference to the new county offices now in course of erection at Wakefield the General Purposes Committee recently made a report to the Council. The committee having learnt that the architects did not consider that certain of the provisional sums specified in the contract for the purpose of stone carving, decorative marble, fibrous plaster, and other work of similar character were sufficient to carry out the scheme in a thoroughly satisfactory manner, and in conformity with the style of building, requested them to furnish an explicit statement showing what further expenditure they deemed desirable under each head. The committee had carefully considered the details of all the proposed works with a view to ascertaining what reductions were practicable in the figures submitted by the architects. The bulk of the work was in the nature of decoration, and if it was to be done at all the committee thought it essential that the quality should be of a high class, and that an artistic character should be preserved throughout. Any reductions therefore must be by way of omitting altogether elaborate ornamentation in certain portions of the building rather than in introducing any inferior work. The committee recommended that the Council should sanction various "increases of provisional sums" and "other additional expenditure" amounting to £4,705, and also an expenditure of £800 on the decoration of the ceilings and walls of the Council Chamber and the ante room (not provided for by the contract), making a total additional outlay of £5,505; the total expenditure in respect of the buildings is expected to be £89,364. The following matters still remain to be provided for:—Internal decoration, including painting, paperhanging, boiler house and buildings connected therewith, and furnishing, including the seating of the Council Chamber, for which estimates have not yet been prepared.



FLORENCE: WINDOWS OF THE CATHEDRAL BY GIOTTO.

AT the meeting of the Improvement Committee of the Birmingham Corporation, last week, plans were submitted and approved for the erection of 64 "dual houses," to utilise the space known as the Milk Street area, of a type new to Birmingham, but one which has already been adopted by the Liverpool Corporation, and favourably considered by other municipalities. The plans, which have been prepared by Mr. P. Addie, the secretary and manager of the Improvement Department, will now go forward to the City Council, and on their adoption by that body will be submitted to the Local Government Board for approval and the consequent authority to borrow money to erect the proposed dwellings. The "dual" plan is a modification of the tenement system, giving greater privacy and larger accommodation, and appears admirably adapted both to the needs of the position and the character of the district in which the dwellings are to be placed. The cleared site presented considerable obstacles, especially in regard to the acute angle on the Little Ann Street side of the land, but these have been overcome, and the ground will, if the scheme is approved in its entirety, be well covered, while leaving abundant air space. The main elevation resembles that of an ordinary terrace of small two-storeyed houses, but internally each floor will be a complete dwelling, consisting of a living room and two bedrooms, with respective areas of 12 ft. 9 in. by 10 ft. 6 in., 11 ft. by 9 ft. 6 in., and 11 ft. 4½ in. by 8 ft., and a scullery 9 ft. 6 in. by 8 ft. on the other side of a corridor running behind the living and sleeping rooms. Adjoining the sculleries will be separate sanitary offices for each dwelling. The entrance to the ground-floor houses will be by an ordinary doorway on the street level, and to the upper dwellings, which are identical in area and accommodation, by way of an enclosed external iron staircase and gallery, which is continued round the ends of the blocks to the upper corridor. The sculleries and sanitary offices will occupy only half the lineal area of the living and sleeping rooms, and the intervening spaces will be left open to secure ample ventilation, though the whole area will be under cover. The site contains 4,040 square yards, and the buildings will cover about two-thirds of this, leaving a very considerable space for yards, which will be beld in common for clothes-drying and recreation. It is proposed to let the upper dwellings at 3*s.* 9*d.* per week, and the lower at 4*s.* 3*d.*, and it has been found, after careful examination and consideration, impossible to erect any other class of property which would at these or approximate rentals pay its way.

MR. C. B. FOWLER, of Cardiff, writes that whilst a hole was being dug to erect a scaffold for restoring the roof of the south chapel of

Llanblethian Church, there was brought to light a large sepulchral slab turned top face downwards, which on being removed disclosed a stone-built grave containing the remains of (without doubt) one of the early priests of the parish, for on examining the walling of the grave a small square recess was found on the south side, about six inches square, and standing in same was a pewter chalice. This chalice is of the Romanesque or Norman type, 3¾ in. in height, the bowl being 4 in. in diameter. This type of chalice was used, for burials only, up to the end of the fourteenth century, and they were generally placed on the right-hand side of the body, near the shoulder. The early chalices were very small, with shallow bowls, whilst those of later date were larger and more conical in form, leading us by a definite step to what may be termed the Gothic type, from about the end of the fourteenth to the early part of the sixteenth century, or the end of the reign of Henry VII., many of them showing features of great beauty. During the time of Henry VIII. the chalices lost their Gothic feeling by a complicated foot with flowing outline being added to them, also highly elaborate stems, with bowls of hemispherical form. The chalice found at Llanblethian must be of fourteenth-century date, for the South Chapel, where the grave lies, was built during this period, and several portions of early thirteenth-century sepulchral slabs have been made use of in building up this addition to the original church. It is of pewter, but from its great age little of the metal remains, and unless very carefully handled it would fall to pieces. A similar one was found at Hereford some years past in the grave of Gilbert de Swinegield, chancellor of the choir, A.D. 1297. Strange to relate, the slab covering the grave at Llanblethian is to the memory of a woman, the inscription being in French, of Norman date, the word FEMME being clearly traceable, so that this stone must have been taken from the nave to cover the priest buried in the chapel. This grave is close to the entrance to the crypt.

A CHARACTERISTIC bit of Old London is likely soon to disappear in Cloth Fair, the network of narrow lanes and alleys clustering round St. Bartholomew's Church, Smithfield, and standing on the ground once occupied by the precincts of Rahere's Priory. The Cloth Fair was held from 1133 in the Priory Churchyard, when the woollen merchants and drapers sold their wares in booths. Barthelemy Fair went on after the dissolution of the Priory in 1544, but the cloth merchants had moved from the churchyard booths into substantial houses and there flourished, nor has the trade altogether deserted the neighbourhood to this day. In the principal street and its nest of courts, as well as in Middle Street and East Passage, there are gabled fronts, projecting windows, and here and there some bits of old carved timber, though houses of later date have intruded considerably. These latter, however, are now old-fashioned and inconvenient, so that Cloth Fair is doomed to give way to modern warehouses, and those who want to look upon one of the last remaining features of bygone London, and an historic spot, will do well to visit it.

BY a strange coincidence, one of the most interesting memorials of Molière, to whom the Church refused burial, is hidden away in the garden of a Dominican convent. It is a classical temple in the taste of the last century, and was built by the Duc de Praslin, the pre-Revolutionary Foreign Minister. Little is left of the original structure save an elegant but decaying peristyle, with an entablature bearing the words:—"Ici fut la Maison de Molière." Scarcely 50 yards away, in the Rue Théophile-Gautier, another house has an inscription, stating that it was the suburban abode of the dramatist, about 1667. Probably no evidence exists upon which to determine between these rival claims, but it seems a pity that the Duc de Praslin's monument should be allowed to perish for want of a few francs. Molière, indeed, has been rather unfortunate as regards the identification of his dwelling-places. A mural tablet in the Passage Hulot still, we believe, misleads the world as to his ordinary domicile. He really lived over a tailor's shop in the Rue Richelieu, facing the Rue Villedo, his host being one Baudelet, but not a vestige of the old building remains.

GRADUAL, though extensive, alterations are in progress at the Middle Temple. Some of the old courts of the Inn are being rebuilt, the Treasury offices of the Inn are being greatly enlarged, and more of the old courts will very soon be pulled down to make way for fresh structures. By this gradual and piecemeal process the rebuilding is being accomplished with a minimum of disturbance. For some years one of the most striking architectural features of the Embankment has been the beautiful hall and library which were recently built facing the river. One defect in it was the want of access from the Embankment. But this inconvenience has now been removed by the erection of a gateway and entrance.

THE idea that the greater the height of a chimney for a boiler plant the greater will be its draught-producing power, is responsible for the existence of many stacks of imposing size and unnecessary costliness. A very tall chimney, well-proportioned and gracefully outlined, may be a striking Architectural feature, but it is one that costs a considerable amount of money, without doing any proportionately increased amount of good. Where chimneys are intended to carry off noxious fumes from chemical or other works, there is of course, some reason for the increased height. The draught-producing capacities of chimneys having flues of the same size are in proportion to the square roots of their heights, so that if one chimney were to have double the power of another, it would have to be four times as high, and not merely twice as high, as many suppose. A height of 150 ft. may be considered, on good authority, as the maximum necessary in any case for producing the requisite draught, providing, of course, that the area of the flue has been properly proportioned. This latter should be made to bear a direct ratio to the combined areas of the boiler flues connected with it. A chimney-stack much beyond 150 ft. is generally suggestive of misspent money.

IN Sixth Avenue, Eighteenth and Nineteenth Streets, New York, is to be erected the largest business establishment yet undertaken. It will cover some 18 acres of ground, be six stories high, and a tower 200 ft. high will rise from the middle of the building. The construction of the whole is as fire-proof as money can make it, and there is an elaborate "sprinkler" system. On the vast roof there will be a mammoth conservatory in which all kinds of flowers and plants will be raised and sold, and there will also be a large photographic studio. To ascend to the roof or various floors there will be 10 passenger lifts, and an equal number for goods, one of these—the furniture lift—being large enough to take a pair-horse van. In the basement there will be fitted an expensive electric plant, whose power is used wholly in one building. All through the building, everything moveable will go by electricity, elevators, clocks, fans, carriers, ventilators, fountains, cooking appliances, lights, signs, and a complete house telephone system. There will be nearly 100 electric clocks at convenient intervals throughout the building, and a total of 6,500 incandescent and 800 arc lights will be used for general and special illuminating purposes. Three thousand of these lights are for external use. In the centre of the main floor is a circular marble basin, 70 ft. in diameter. From the centre of this basin rises the heroic bronze statue of the Republic, executed by French, the sculptor. Surrounding the base of the statue are four electric fountains.

APPLICATION has been made by the Town Council for a further loan for the purpose of completing the Montpellier Baths, Harrogate, which are now in course of erection. At the Local Government Board inquiry, held in the Council Chamber, at Harrogate, and amongst those present were Mr. Stead (Borough Surveyor) and Mr. Baggallay (Architect), of London, the Town Clerk said that in 1891 the original estimate for the erection of the baths, which was submitted to the Local Government Board, put the total cost at £45,678, and sanction was obtained for the borrowing of £50,000. Between 1891 and 1894, however, when the contracts were let, a good deal of trouble was experienced in connection with the foundations. It was found that the strata in which the mineral water was to be had underlaid the foundations, and it was consequently decided to raise the building in consequence some two feet. It was estimated that the extra cost of that work would be about £3,000. The extras on the building contract were estimated at £1,325, but that, it was considered, was more than balanced by an anticipated saving from the contingent allowance. On the smith's, plumber's, and glazier's work—the contract for which was £14,500—the extras would be about £2,036. This increase was mainly due to the provision of further bath-rooms. Other items were increased as follows:—Joiners' and carpenters', £1,618; slating, £180; plastering £289; painting, £50; steam boiler, £310. In all the cost was now estimated at about £70,000, while fees, law charges, commissions, and various incidental expenses were estimated at about £12,000. The total amount which it was proposed to borrow was £34,000, of which £32,000 would be required for the purpose of completing the baths.—Mr. Baggallay, the Architect, stated that the estimate in 1891 was made up as follows:—Main building, £34,429; winter garden, £9,191; pump room, £2,058; total. £45,678. This had been altered so that the winter garden was estimated to cost £26,380, while the cost of the pump room was reckoned as a saving, inasmuch as it had been omitted as a separate building. The excess over the original estimate was due to three principal causes—(1) the unusual character of the building; (2) difficulties with the site and foundation; (3) important alterations of the plans. The unusual character of the building caused the estimate based on the cost of other public buildings in the neighbourhood to be altogether fallacious; the character of the site and the possible risk of interference with the mineral springs necessitated considerable extra expenditure. The dressing-room accommodation was also being increased, as well as the number of needle baths. The electric light had also been adopted, and there were other minor additions to the cost.

EMBRUN possesses a venerable and interesting Cathedral, dating from the eleventh century. One of its most beautiful features is the north porch, in Romanesque style with red marble pillars, the two outer ones resting on lions, the other two consisting each of four slender columns interlacing with one another, and resting on the shoulders of a crouching dwarf-like figure. The Cathedral possesses an organ presented to it by Louis XI., who for 21 years, from 1440 to 1461, while he was Dauphin, resided in the province from which the oldest sons of the Kings of France derived their title. The organ is on the north side of the western end of the nave, and is supported by a marble pillar, from the capital of which is a fan-like projection spreading around the organ's base, to which it distributes the pillar's support. The pillar is placed against one of the columns of the nave, into which the organ projects from the clerestory wall. The organ is approached by a gallery suspended across the lowest arch of the nave, and ascended to by a tourelle built up against the west wall. Louis XI. thought much of the inspiring counsels of Notre Dame d'Embrun, now represented in the Cathedral, in a large chapel on its south side, by what seems to be a last-century statue of the Virgin and Child. But in former days the representation of the Virgin, with which was associated the local devotion rendered to her, was in the beautiful porch. Near to the Cathedral the Brown Tower, as it is called, stands prominently, as it has done for 700 years, and now shows upon its walls the marks of time.

THAT the strike in the Nottingham plumbing trade is at an end and that the threatened lock-out in the building trade has, therefore, been averted, is cause for congratulation. The strike in the plumbing trade has caused great inconvenience and not a little loss, but if the stoppage of work had been extended to all the branches of the building trade the consequences to the town would have been disastrous. There is more building going on at the present time than for many years, and much more is impending. It is not too much to say that a large portion of the centre of the town is being rebuilt, while in the outlying districts building operations of extensive character are being carried on. It is well known also that several very expensive building schemes are to be commenced shortly, and if all this had been stopped, as seemed likely a few days ago, by a trade union dispute, the public would have had good reasons for serious complaint. For a long period building was almost suspended.

During the past week the British Iron Trade Association has collected and published the statistics of the production of steel in the United Kingdom for the first half of the present year. The figures show an almost unprecedented increase of output, which is a specially interesting fact in view of the discussion that has been going on for the last year or more as to the alleged superiority of German methods and the success of Continental competition. It appears that the total production of steel for the first six months of the current year was as much as 1,969,320 tons, or at the rate of 3,938,640 tons a year, which is by far the largest output of steel hitherto arrived at in a single year by any European country. The figures have, however, in several years been exceeded by the steel output of the United States. The largest increase of output appears to have taken place in the open-hearth steel industry, which, although not much over 25 years old, and scarcely worked on a commercial scale 20 years ago, now yields over 2,100,000 tons of material per annum. This is an advance which is without parallel in the history of any other branch of British ironmaking, and is perhaps unique in the history of British industry. The North of England, where only a few hundred tons of open-hearth steel were produced 15 years ago, is now producing that material at the rate of over 800,000 tons a year. Scotland is not making quite the same amount of progress, but even there the advance has been marvellous, seeing that 292,782 tons were produced in the first half of the current year, where only a few thousand tons were produced at the only works of the kind established in Scotland 20 years ago. The Sheffield district has not made such striking progress as Cleveland and Scotland, but still the advance has been material, and the same remark applies to Wales, Lancashire, Staffordshire, and other districts.

Speaking at a meeting of the committee formed for the purpose of establishing a Memorial of International Submarine Telegraphy, the Earl of Selborne said the business before them was to inaugurate an international submarine telegraph memorial in which all the nations of the earth proposed to take part in order to put on record their respect, he might almost say veneration, for this great invention, which had already had so large an effect on humanity and on the history of the world. It was intended to connect the memorial with the names of three men familiar to all—Mr. Cyrus Field, to whom belonged the conception of this great idea; Sir John Pender, who risked his capital and threw into submarine telegraphy the force of his character and ability; and Sir James Anderson, captain of the "Great Eastern," who, when scientists proved to demonstration that a submarine cable could not be raised, showed they were wrong by raising one. The first Channel cable was laid in 1851. There were now 162,000 miles of submarine cable, and the capital invested was not far short of £40,000,000. All those who were connected with commercial operations knew the value of this communication. It had constituted a revolution in the science of government. The first patent for electric telegraphy was taken out by Wheatstone on June 8th, 1837, and it was certainly one of the greatest triumphs of the present reign.

To make room for the usual small villas which are shortly to be reared on the site, one of the few old-world mansions now remaining in Chiswick has just been demolished. This was known as "Mr. Ranby's House," and was situated in Chiswick Lane, not far from Mawson Row, where Pope and his father resided for a time. The mansion, which was built in the early Georgian style—red brick, with stone dressings—stood in the vicinity of the old Manor House—now a private lunatic asylum—and another historic building known as Grosvenor House, and was made the subject of a special sketch by Hogarth, who, with his wife and sister, also repose beneath the shadow of the quaint old Church which forms such an interesting landmark on the river. "Mr. Ranby" held the post of surgeon to George II.

In London, the buildings associated with the name of Byron are rapidly disappearing or are being outwardly transformed. The house in which he was born in Holles Street has been pulled down; the building near Hyde Park Corner in which he lived after his marriage, and which was once occupied by Lord Glenesk, has been refaced with white stone; Long's Hotel, in Bond Street, which the poet used to frequent, and where he last saw Sir Walter Scott, has been rebuilt; and a house he once lodged in is undergoing extensive alterations. The building known as the Cocoa Tree Club, frequented by Byron, is, however, still to be seen in St. James's Street.

To those familiar with the interior of St. Paul's, the figure of Dr. Donne is known, and also as having been saved from the ruins of the old Cathedral. It appears that the fashion of having these emaciated figures, sometimes miscalled "skeletons," on tombs lasted for not longer than a century—that is from about 1450 to Dr. Donne's own time. In Salisbury Cathedral there are two of these figures. At Wells Cathedral there is one in Bishop Beckington's beautiful chantry, and at Winchester Bishop Fox is thus represented.

During the restorations in progress at the Church of St. Pietro in Ciel d'Oro, at Pavia, one of the oldest buildings in the ancient capital of the Longobardic kings, a stone coffin has been found, containing the bones of King Liutprand, who reigned between the years 712 and 744 A.D. The Church was enlarged and decorated by this powerful ruler of the Lombards, but it was not known that he was buried in it. Near the same place was also found the fragment of an inscription from the gravestone of his father, King Ansprand, and also inscriptions of the sixth century in the Longobardic language and in Latin.

The Church of Santa Maria degli Angeli, which will be the scene of the marriage of the Prince of Naples and Princess Helen of Montenegro, surpasses in grandeur and interest most of the Roman basilicas. In its vast transept is undoubtedly preserved the great hall of the baths of Diocletian. Some of the huge syenite monoliths that support the arches date from the fourth century. Tradition relates how thousands of Christians perished in the erection of the building, and the mark of a cross found here on the bricks is pointed out as a proof of the story. To these martyrs the structure owes its name, which was conferred by Pope Julius III. about the middle of the sixteenth century, when it first appears to have been consecrated. A few years later Pius IV. entrusted Michael Angelo with the entire remodelling of the edifice, and this was one of the last tasks of his noble life. To lovers of Art the place is sacred as containing the tomb of Salvator Rosa and the famous St. Sebastian, by Domenichino. Across the pavement of the Nave is drawn the meridian line laid down for Clement XI. by Bianchini and Maraldi, the famous astronomers.

In his last report to the Foreign Office, Consul Stevens, of Batoum, gives an account of the various branches of industry and trade which have contributed so much towards the prosperity of the town of Baku, and which, he says, have been the direct factors in elevating it to the dignified position of a first-class maritime port, and the most important commercial centre in the Caspian Sea. He states that this flourishing state of affairs has been brought about, firstly, by the discovery, several years ago, of an unlimited supply of naphtha at the mineral oil-fields in the neighbourhood of the place; and, secondly, by the fact that until the completion of the Beslan-Petrovsk branch of the Vladikavkaz Railway a couple of years back, Baku, owing to the absence of means of communication in other directions, was the only point at which Russian manufactured goods for Central Asian and Persian markets, and the produce of those two countries for the Russian market could be concentrated for dispatch to and fro. Recognising that a good deal has on previous occasions been said in respect to the enormous wealth of the naphtha supply furnished by the wells on the Apscheron Peninsula, and other points in the vicinity of Baku, he limits himself to now saying, that although the spontaneous flow of oil wells is probably not of such frequent occurrence as used to be the case from two to three years ago, yet oil is still being procured in unlimited quantities, and flowing wells delivering at the rate of from 3,000 to 5,000 tons a day are at intervals reported. During his stay at Baku one of these fountains was throwing up oil at the extraordinary rate of about 10,000 tons daily, and bringing in an income of nearly £6,000 per diem to its owner, and although it did not continue at this rate very long, nevertheless during the last two months this fountain has thrown up over 300,000 tons of naphtha, which, at the market rate that has prevailed this year, represents a sum of from £150,000 to £160,000. This oil was run into two large ponds which had been prepared for its reception, and from thence it was pumped, as fast as the capacity of the machinery would allow, direct into tank-steamers lying alongside the adjoining jetties for conveyance to Astrakhan. The numerous refineries call forth a steady demand for a large assortment of machinery, tools, and other appliances, as well as minor articles for the execution of repairs and other such like smaller work in connection with the plant erected, so that a very animated trade is likewise carried on in these commodities.

At the last meeting of the County Council an adjourned report of the Improvements Committee with reference to the Strand Improvement reported that the National Telephone Company, whose interest in the property on the eastern side of Wellington Street, at the junction with the Strand, had been acquired by the Council with a view to the widening of the road, had recently acquired the property Nos. 138 and 138A, Strand, in order to increase the size of the Company's building in course of construction at the corner of Wellington Street, and the Company had been asked upon what terms it would be prepared to sell sufficient land to continue the widening of the Strand at that spot. So far, however, no satisfactory reply had been received from the Company, and it became necessary for the Council to consider whether, in the event of the Company declining to sell at a reasonable sum the land required for widening the road, the Council ask the local authority (the Strand District Board) to acquire the land compulsorily under the powers conferred by the Act 57 Geo. 3, chap. 29 (Michael Angelo Taylor's Act), the Council possessing no compulsory power of purchase. The estimated cost of the improvement now proposed, including the cost of paving and other works, was £1,760. They considered that the widening of the road was desirable, and, the Council having already admitted the necessity of the improvement, they had decided to advise the Council to arrange for the carrying out of the work.

From Athens is reported the discovery at Patras, in the middle of the so-called Psila Alonia quarter, of a very fine mosaic, of Roman date. The portion at present above ground is about three metres in breadth and six in length, and is enclosed at the bottom by a border. However, it appears that the mosaic block continues still further underground. The length now open to the light contains two distinct representations. One of them exhibits some young nude athletes after the conclusion of recent games. In the second picture, which is only partially in good preservation, is seen a figure adorned in purple, holding a lute in his hand, and accompanying on it a band of young dancing companions, on whom his gaze is fixed. In the other corner of the same picture females in short dresses hold stringed instruments; one of them seems to be a flute-player. The colours of the mosaic are remarkably vivid.

An old Stockton institution is just now being removed from the High Street. The almshouses, which occupy a commanding site in the chief thoroughfare, are being dismantled. The property has been purchased by Messrs. Levy and Co., of West Hartlepool, and we understand that it is their intention to erect shops on the site. A sum of £5,000 was paid for the buildings and land, and this not only enables the trustees of the charity to build new almshouses in another part of the town, but to further endow the charity for the benefit of the several recipients. Almshouses existed in Stockton as far back as 1682. The old almshouses were taken down in 1816, and those which are now being dismantled were erected in that year.

Workmen will soon be engaged in erecting a long landing-stage and shanties on the banks of the Seine near the Cours-la-Reine, for the purposes of the Exhibition of 1900. A subterranean

railway line will also be commenced for the work of carrying building material from the river into the enclosures on the Champs-Elysées, where the new palaces are to be constructed. The contracts for these preparations will be out most probably next week. According to the roseate descriptions given of all the plans and arrangements, one would be led to believe that the buildings will be erected noiselessly, and that persons walking in the Champs-Elysées will not be inconvenienced by mortar or rubbish. It is also set forth that no damage will be done to the favourite walking and driving grounds of Parisians, but this can only be proved when the works are in progress.

IT has been definitely decided that French engineers are to construct the great naval and military arsenal for the Chinese Government at Foo Chow. The matter was discussed with M. Hanotaux, Minister for Foreign Affairs, by Li Hung Chang during the latter's stay in Paris. The Chinese Envoy and his experts made a most minute examination of French dockyards and gun factories while they were in this country, and hardly anything escaped their attention. The contract has been signed, and provides for the employment on the work of a large number of experts. Those selected will be under the orders of a marine engineer, whose staff will consist of two others of his profession, a designer, a secretary, and five foremen of works. All these are to start at once for Foo Chow, where they are expected to begin work in February next. It is also intended to attach a French civil engineer to the Russo-Chinese Bank. This official is to perform the duty of observing and reporting upon the works about to be undertaken in the Chinese Empire.

AT the recent meeting of the City Corporation, held at the Guildhall, Mr. Woodrow, Chairman of the General Purposes Committee, moved the adoption of the report of the Committee, which recommended that the Mansion House should be renovated at a cost of £7,550. Mr. Woodrow was of opinion that even more money than was proposed was required. He was in favour of an expert being called in to give a report on the subject—Mr. J. Judd hoped that some day some bolder Chairman would come before the Court with a proposal to build a new Mansion House on a more suitable site.—Mr. Elliss moved the omission of the flooring work, which brought the estimate down to £6,000.—Major Joseph said that the sum proposed would not half do the work. It was a shame to take a man from his comfortable house and "stick him in the dirty, gloomy house called the Mansion House," which ought to be sold for a million of money, which sum would build municipal buildings close to the Guildhall.—Mr. Lile said the Mansion House was a disgrace to the City, and was not to be compared with any of the municipal buildings in the great provincial towns. The report was agreed to.

WE understand that Messrs. George Bell and Sons hope to have ready by Christmas an elaborate book on the late Mr. William Morris's work as an industrial and decorative artist, preserver (as distinguished from "restorer") of ancient monuments, and general worker in the æsthetic movement of his day. The book, written by Mr. Aymer Vallance, a disciple of Mr. Morris's, is to be entitled "The Art of William Morris: an Illustrated Record," and will contain numerous coloured plates, photogravures, and collotypes, and reproductions of drawings in black and white, specially made for the work.

ICONOCLASM halts at Hampstead. For some time past a good deal of feeling has been aroused in the district respecting the proposal to convert the Chalybeate Spring in Well Walk into an ordinary drinking fountain. The fountain was famous at the beginning of the last century, the original having been connected with the well at the expense of the parish in 1700. Its water still possesses some medicinal qualities, but the outflow is gradually diminishing. In deference to public feeling the Works Committee of the Hampstead Vestry recommended that an additional basin and tap be provided, and ordinary drinking water turned on, without interfering with the present supply of mineral water, and this suggestion has been agreed to. Thus one relic of the past is saved from modernisation.

Professional Items.

SHREWSBURY.—The Bishop of Lichfield recently laid the foundation stone of a new High-Class School for girls, situate at Murivance, and estimated to cost about £7,000.

ILKESTON.—The Wesleyans have decided to build a new Church to accommodate nearly 800 worshippers, with a frontage to Bath Street, and the memorial stones were laid last week.

BRIDGEND.—Plans have recently passed the Council, of a large Sweet Factory which is purposed to be built in the town by Mr. C. E. Davies, according to drawings which have been prepared by Messrs. Lambert and Rees, Architects, Bridgend and Neath.

NEATH, SOUTH WALES.—Two new Hotels, one to be erected opposite the Neath (Great Western) Railway Station, and another at St. David's Street, Neath, the plans having been prepared by Lambert and Rees, of Neath and Bridgend.

CUTSYKE (YORKS).—In a limited Competition for new Board Schools at Cutsyke, for the Glass Houghton School Board, plans and designs by Mr. George F. Pennington, Architect, Castleford, have been accepted. The plans provide accommodation for 230 children in the mixed school and 120 infants, with a future extension of 230. The exterior of the building is in brick and stone.

EVERTON.—The new Branch Library, opened recently by the Lord Mayor, is to supplant the old North End Lending Library in Great Nelson Street. The Library occcupies the ground floor, and the Technical School the first floor and basement, and the whole covers an area of some 700 square yards. A special feature of the new building is that special rooms have been provided for women and boys.

PETERBOROUGH.—A new Roman Catholic Church was opened last week by Dr. Riddell, Bishop of Northampton. The edifice, which was designed by Mr. Leonard Stokes, is in the Gothic style of architecture, and arrangements have been made for its enlargement when required. The cost of the Church has already been collected by the congregation, assisted by several prominent Catholics in the country.

PITCAPLE, N.B.—The Free Church at Chapel of Garioch, after having undergone extensive alteration and renovation, has been re-opened by Rev. Professor Robertson, D.D., Aberdeen. The Church has been closed since early in the present year, and very great improvement effected in the interior of the building. In connection with the scheme of improvement, a new meeting hall (capable of seating 150 persons) and vestry have been erected at the rear of the Church.

DRIFFIELD.—Sir Tatton Sykes, Bart., has just completed the erection of a block of Estate Offices, with clerk's residence, at Sledmere. The new buildings provide for an agent's office, clerks' offices, drawing offices, map room, tenants' waiting-room, and all the conveniences necessary for the requirements of the estate, which is one of the largest in the East Riding. The designs were furnished and the work superintended by Mr. John Birch, of John Street, Adelphi, London, from whose designs the new Post Office at Sledmere is now being built.

PLYMOUTH.—The workmen's homes at Prince Rock were formally opened by the Mayor of Plymouth, on Thursday last. Nine blocks of houses, capable of affording accommodation for something like 500 people, were opened; but this undertaking only represents about five-eighths of the whole scheme, on which a large sum of money is to be expended. One block only is completed, but the remaining eight will be ready for occupation in the course of a very short time. The Architects are Messrs. Hine and Odgers, and the builder is Mr. May, of Plymouth.

LLANELLY.—The Estate Committee of the Llanelly Borough Council, recently held a meeting to consider certain suggestions for the better internal arrangement of the Market. In view of the continuous and probable further expansion of the Market, it was suggested that the land lying between the present market and Murray Street (including the site of the old baths) be acquired at a cost of about £4,000. Another suggestion was that the site of the old baths be laid out for a cattle, sheep, and pig mart. These two suggestions were referred to a future meeting for further consideration.

COVENTRY.—There is now being pulled down the house in Little Park Street, Coventry, where George Eliot's schoolmistresses lived. The Misses Franklin previously kept school at 29, Warwick Row, and there it was that the novelist lived with them. They afterwards removed to the Park, occupying a Queen Anne house, which is often erroneously described as George Eliot's school, though she often visited them there. The place is being pulled down (by Messrs. Gowing and Ingram, of Birmingham) for extensions to the Coventry Machinists' Company's cycle works.

HORFIELD.—At Manor Road a Women's Shelter Home is being erected, from plans by Messrs. Moncrieff and Rowley, and the builders entrusted to carry them out and to complete the interior of the ground and first floors are Messrs. Hughes and Weekes. The main building includes a partially separated dwelling for the superintendent, apartments for the matrons, the necessary domestic offices, kitchens and stores, bathroom and lavatories, entrance hall, two rooms for the use of inmates when not at work, and a dining room and sleeping accommodation for 20 women.

HULL.—It is proposed to erect at Jenning's Street, in the Kingston Circuit, a new Wesleyan Chapel to supersede a Mission School. The new structure is to have sitting accommodation for 650 persons, and the expenditure is estimated to be £3,500. In the Dewsbury Circuit, a Mission-room is to be purchased in Granville Street, at an estimated outlay of £600. At Marsett, in the Hawes Circuit, a new Chapel is to be erected to seat 110 persons, the estimated cost being £450. At Wilsill, in the Pateley Bridge Circuit, a new Chapel is to take the place of a rented room, with sitting accommodation for 90 persons, the outlay being £333. At Heapham, in the Gainsborough Circuit, a Village Chapel is to be built, to seat 100 worshippers, estimated expenditure being £450. Altogether the Chapel Committee has sanctioned proposals for the erection of new Chapels amounting in the aggregate to £20,300.

GARWAY (HEREFORDSHIRE)—The ancient Parish Church of St. Michael's, Garway (A.D. 1061), has been re-opened by the Archdeacon of Hereford, after a complete restoration of Nave, Chancel, and Knight Templars' Chapel, the work consisting of the repairs to all the walls, and re-roofing throughout. The old semicircular plaster ceiling has been entirely removed, and replaced by a boarded one divided into squares, with mouldings and the Knight Templars' and Knight Hospitallers' coat-of-arms introduced. The inside walls have been entirely renovated with Duresco paint and petrifying liquid. The old detached Tower still remains to be done, and, according to the Architect's report, requires immediate attention. The unique Norman Chancel Arch has not been touched in any way. The masonry work has been entrusted to Mr. Charles Tilley, and the joinery work to Mr. M'Colley, both of Garway, the whole being carried out under the directions of the Architect, Mr. Ernest G. Davies, Hereford.

CHELTENHAM.—The Lord Bishop of Gloucester and Bristol has consecrated the new Chapel which has been erected to commemorate the jubilee of Cheltenham College, which occurred in 1891. The building is a massive parallelogram, in the Gothic style. The ground plan is 164 ft. by 49 ft. 6 in., and the floor space inside is 148 ft. 5 in. by 33 ft., which will give seating accommodation to 630 boys, 50 masters, the College servants, and about 150 visitors. The Chapel is built of Cleeve Hill stone, with red Farleigh stone for dressings. One of its chief Architectural features is the East window, which is amongst the widest in the kingdom—viz., 26ft. 6 in., while its height is 25 ft. At present only the shell is erected, and this at a cost of

about £13,000. It is intended to spend a large amount on ornamentation. Messrs. Middleton, Prothero, and Phillott were the Architects (Mr. Prothero's design having been accepted in a competition). Messrs. Collins and Godfrey were the builders.

BARNSLEY.—The memorial stone of an Independent Chapel, now in course of erection at Sheffield Road, was recently laid by Alderman Batty Langley, of Sheffield. The new Chapel is being built to take the place of the oldest Nonconformist place of worship in the town, the old Independent Chapel, Sheffield Road, and will, with the alteration of the present premises into a school, cost about £1,500. Designed by Mr. George Moxon, it is to be of stone, in an early Gothic style of Architecture, and will occupy the centre of the graveyard, between the old Chapel and the street, from which it will stand back 30 feet. The entrance will be through vestibules, each having a staircase to the end gallery, which will extend the full width of the front, and be divided into compartments by glazed swing doors. The body of the Chapel will have two longitudinal aisles, and modern seating, with rostrum, and provision right and left for the choir. The roof will be open timbered, the internal woodwork of pitch pine, and the windows glazed with tinted glass. Vestries, class-rooms, &c., will be provided, and, the accommodation being for 400, provision for enlargement will be made.

NEWCASTLE.—A new Congregational Church is to be erected at the corner of Beech Grove and Westmorland Roads, to take the place of the West Clayton Street Congregational Church, which has been disposed of. The buildings, which have been designed by Mr. Stephen Piper, are to cost £8,000, that amount to include all the details of the work. The cost of the actual buildings is put down at £6,950, but the heating, lighting, &c., will bring the sum to £8,000. Mr. G. H. Mauchlen is the contractor. The Church is to consist of a wide Nave, with Transepts and passage Aisles, and the main entrances will be in Westmorland Road and Beech Grove Road. There will be accommodation for 700 adults in the Church. The school or hall is on the north end of the site, with two main entrances and staircases leading up to class-rooms on galleries. At the back of the school or hall, near the platform, are ladies' and gentlemans' cloak rooms, and a kitchen with the usual fittings, &c. There is also an infants' class room, with access from the school, and with a separate entrance. A Church parlour is placed on the first floor, and adjoining is a large room to accommodate 100 adults. The heating, ventilation, and drainage will be carried out on the most approved lines, and the buildings are proposed to be lighted by electricity.

PERTH.—The new Church building recently opened is not far removed from the site of the old Wilson Kirk, which had to be pulled down to allow of the formation of the new street. The exterior of the building is in free classic Renaissance Architecture. The principal entrance is in the centre, but there are auxiliary doors on each side. At the main entrance is a spacious vestibule with cloakrooms adjacent, and from this vestibule lobbies lead to the area of the Church and the galleries. At the hall entrance (from the side) another stair leads to the hall on the first floor, and the gallery is also accessible from this stair. A feature of the planning is that the hall, or, in fact, any other of the rooms, may be used with separate access, and quite independently of the Church, or all in connection. The interior of the Church is divided into a Nave and side Aisles by wide stone arches springing from piers at the end and columns in the centre. One column on each side forms the only obstruction to a view of the pulpit from all parts of the Church. There is a gallery over the entrance end next the street, and also at each side over the side Aisles, the side galleries being only three seats deep. At the opposite end of the building a massive stone arch covers the pulpit recess, and smaller arches on each side cover the organ chambers. The Architect of the building was Mr. John B. Wilson, Bath Street, Glasgow. The cost of the building and organ is over £10,000. The contractors were:—Messrs. Fraser and Morton, builders; Mr. Thomas Forgan, joiner; Mr. James Buchan, slater; Messrs. John Mackay and Sons, plasterers; Messrs. W. Frew and Sons, plumbers and gasfitters and heating; Messrs. Stalter and Boyd, painters; and Messrs. W. Meikle and Sons, glaziers.

FARNINGHAM.—A carved Reredos, of Kentish grown oak, designed by Mr. William Hilton Nash, has been erected at Farningham Church. The new Reredos is in the early Perpendicular style of Gothic Art, and has, in the main, three central compartments; the middle one having a grained and projecting Canopy, octagonal on plan. On either side are lean-to panels flanked by traceried buttresses which terminate with carved and crocketted pinnacles designed to rise diagonally out of the uttermost splay of the buttresses, old buttresses also terminating in crocketted pinnacles from the upright line of demarcation between the main panels, and the central canopied recess. The upper part of the fabric is one mass of crisp and delicate conventional carving, all of fifteenth century character, and the whole terminates with a pierced and carved cresting, alike light in conception, and exquisitely delicate in its manipulation. Over the altar and immediately below the super-altar is a long panel taking the full length of the altar table itself. In this panel are three shields. Upon the central one is Alpha and Omega entwined and taking the form of a monogram. These the first and last letters of the Greek alphabet, signify, of course, the Divinity and Eternity of Christ. On the shield on the dexter side of the panel are the Cross-Keys of St. Peter and on the sinister the swords of St. Paul in a like position. The double dedication in mediæval Churches to the combined glory of these two popular saints was a common one. There are no less than 230 mediæval Churches in the country so dedicated, whilst to St. Peter alone there are 830.

KEYSTONES.

THE Ilford Conservative Club is to be enlarged at a cost of nearly £700.

MR. RICHMOND, R.A., is engaged in designing a memorial to Lord Leighton, which will be placed in St. Paul's Cathedral.

THE Bishop of Exeter recently consecrated a new Church at Torquay. It has been erected at a cost of £12,000.

AN oak chest with carved panels has just been placed by the Dean and Chapter in the south aisle of the choir of Ripon Cathedral. There are seven panels in the front of the chest, and the upper portion of these are carved.

THE new schools belonging to the Free Methodist Churches in Cardiff have been opened by the President of the Annual Assembly. The large new church, which has cost £9,000, will be opened in a few months.

THE foundations of the Brighton Chain Pier are giving way. The structure has been inspected by the borough engineer, and certified as totally unsafe. We understand arrangements for its demolition will promptly be made as a portion of the pier has already been blown away.

IT is the intention of the Aire and Calder Navigation to construct a new dock at Goole, which will be located off Bridge Street, and adjacent to the Railway and Ship Docks. The work, we are informed, will be commenced early in the spring.

THE landing-stage at St. Leonard's Pier was washed away on Tuesday night of last week by the gale. The wreckage was driven against the ironwork of Hastings Pier, smashing five massive iron columns, and doing damage estimated at £500.

ON Thursday, the foundation stone of the new bridge which is being built across the Clyde at the foot of Jamaica Street, Glasgow, was laid. This is the third bridge to span the Clyde on the same site. The foundation stone of the first was laid in 1768, that of the second in 1833.

THE Leeds City Council has decided to apply to Parliament for power to spend £650,000 upon the construction of new reservoirs in the Washburn Valley, and to purchase lands to prevent the pollution of the existing and intended reservoirs. The work is expected to be completed in about 10 years.

A PUBLIC meeting was held last week in the Council Chamber, Newcastle, for the purpose of considering the proposal to erect a new Infirmary in Newcastle in commemoration of the long reign of the Queen. The total amount of subscriptions promised amounts already to £38,500.

IT having been stated that the Postal Authorities were likely to adopt a site at the north end of Castle Street, Forfar, for a new Post Office, the Council has issued a memorial, setting out that the site is most objectionable, and praying that a more central position be chosen.

FALKLAND PALACE, formerly the seat of the Dukes of Albany, and a monument of Scottish Architecture and decoration, is undergoing considerable repair, the fabric being in need of much attention. It is satisfactory to know that the Marquis of Bute, the owner, has decided that the work is not what is generally known as "restoration," but of preservation.

A GOOD deal of excitement was caused by the sudden collapse of about 150 ft. of the quay wall at Hendon Dock, Sunderland. The masonry carried with it a number of railway trucks and some timber stacks, while a huge travelling crane was also precipitated into the basin. Fortunately no one was injured, though several gangs of workmen had very narrow escapes.

PRINCESS CHRISTIAN last week opened the new buildings for a Boys' Club in Ben Johnson Street, Stepney, for which the Haileybury Guild of masters and old members have made themselves responsible. The designs for the building were drawn up and presented by Mr. Reginald Blomfield, himself an old Haileyburian.

AN interesting statement was recently made as to the year's building operations in Glasgow. The amount in the value of buildings was the greatest in any year since 1876 77, viz., £1,290,000. The total number of dwelling-houses up to and including four-room and kitchen houses was 3,398, against 3,197 in the previous year.

IN connection with a new house at Birchington, the men employed excavating came across a complete human skeleton within 3 ft. from the surface, making the third that has lately been found at this spot. By the side of the skull was a small Roman vase about the size of a breakfast cup, from which it is conjectured that the remains are upwards of 1,000 years old.

THE committee appointed to carry out the memorial to Sir Walter Scott in Westminster Abbey, having examined several copies of Sir Francis Chantrey's bust, has selected one executed by Mr. John Hutchison, R.S.A., and it has since been accepted by the Dean of Westminster. The amount required to purchase the bust and to defray the Abbey fees and other expenses is estimated at between £600 and £700, and an appeal is being made to raise this sum.

CONSENT has been obtained from the Dublin authorities to the expenditure of £12 000 in drainage, kitchen fittings, furniture, fire appliances, heating and ventilation, and acquisition of land for a new cemetery in connection with the Letterkenny District Lunatic Asylum; of £3,700 for the acquisition of lands for the Limerick District Asylum; and of £6,800 to provide and equip temporary accommodation at Portrane and Richmond Asylums.

IT is reported from Berlin that the Emperor William has caused a notification to be made to certain leading German steamship lines that, in future, all steamships owned by companies in receipt of State subsidies must be constructed in German shipyards. The notification, which appears to have been communicated verbally through a Ministerial channel, is said to have been called forth by the number of vessels which are in course of construction or have been lately finished by English firms for various German companies.

FOR some time the old cast-iron bridge which spans the Chesterfield Canal, just outside Retford, on the Doncaster side, on the Great Northern Railway, has been condemned, and a new steel bridge has been prepared to take its place. Everything was got as forward as possible, and so nicely was everything calculated that the old bridge was removed and the new one put in place without delaying a single train, and the actual time of putting the bridge into its place was only an hour and a half. The work was carried out under the personal superintendence of Mr. Johnson, the Company's Engineer.

Views and Reviews.

ARCHITECTURAL DESIGN.*

IT is difficult to criticise this Book. It consists of a thoughtful Preface or introductory Essay (with most of which we agree), and of a collection of 101 Plates (with most of which we disagree).

The Author's remark—that Archæology is not Architecture—is axiomatic. The former is a Science, *i.e.*, the collecting, assessing, and systematising of knowledge; while the latter is an Art governed by rules, *e.g.*, Truth of construction, Fitness of material, and Simplicity of treatment.

He laments that contemporary Architecture is little else than imitation of antecedent types. This was more true of the early stages of the Gothic Revival than now; but, at least, that imitation was of noble Work, and it was educational to those who practised it; and it was sufficiently elastic for all demands, and, further, was leading to a consistent domestic English style. Mr. Cotton, on the contrary, casts consistency to the winds; such of the plates of this work as we have seen show an incongruous combination of the worst features of the worst periods of Architecture—a mixing of the dregs of the Flamboyant with the vagaries of the Rococo, grafted on the unconstructional Horse-shoe Arch, while the ornamental details (in which there was a great opportunity) are poor. The design on Plate 45 is inconsistent in the use of the curve of Pediment with the triangular Shelf for a circular vase. The cabriole curve would have been appropriate for the plan of Shelf, and the triangle would serve for the Pediment (if one were needed), but this application of each in precisely the wrong place shows the attempt for Novelty—Put novelty in thy design—fitly if thou canst, but if thou canst not put it fitly: still I say, Put novelty in thy design.

It is difficult to understand why "an Art school" of all spots in the world should have been chosen as the unhappy place in which the design of Plate 101 is to be carried out; though it is possible that the students might require that treatment after five minutes' contemplation of the Fire-place. From the Joint lines (which are marked in some places and *omitted* in others) this is intended for stone; but cast-iron would be more suitable for the coarse and somewhat commonplace detail.

Plate 97 is for "a Shop Front in Iron." There is no feature or treatment about it to show that it is for Iron rather than for Stone, Terra-cotta, or any other similar material. With the very able Entrètien by Viollet-le-Duc, and the American experiments, before us, we have a right to expect from the writer of the Preface something more consistent than this.

The centre Window in Plate 48 is surely a Record for illogicality in the breaks of the cornice round the centre keystone and the pap-like protuberances at each side of the jambs; unless the design on Plate 74 should be held to out-run it. This latter might have been designed by the Jobbing-mason, shown as striving to placate the disgust of the Gentleman at the elaborate and expensive puerility.

It is easy to understand that these are the effect of a revulsion from the Pugin fetters in which the Author may have been brought up; but they are scarcely such as should be published as examples for Architects, in the New Style.

Mr. Cotton has a liking for that product of the Mahometan styles, the Horse-shoe Arch; out of 27 plates taken at random, 17 examples are found.

Window-tracery, an ingenious method of lessening the light and increasing the cost, is very fully shown, mostly of a debased Flamboyant character. The Tracery-panes are designed in apparent disregard of the custom of the Glazier to charge for the extreme dimensions of each piece of glass. There is no sense of the organic unity of the Bars, making the window-head a beautiful arrangement of Frames with rebates; but, instead of this, the bars are sometimes interrupted by Spirals, making them like the fragmentary Scrollery of the Rococo period or like the wooden curves applied in front of the Glass doors of "Chippendale" cupboards. This applied Tracery so darkens the upper part of a Window that it might well be omitted, and then the window could be smaller, and hence in Plate 45 there would have been no necessity for the interruption of the architrave and frieze, and the introduction of the commonplace and inappropriate pediment. Much of his Tracery is unconstructional. It consists, not of *arched* Bars (which support themselves), but of *festoon shapes*, which could not be used except in blocks of large, and therefore *wasteful* size. On Plate 32 the Stone-joints of jambs and lintels are elaborately shown, but those of the tracery are conspicuous by their absence; we wonder why. Is the tracery to be made of *cast-iron?* The centre tracery on Plate 87 is very funny; and might be described as "Tracery emerging from its shell." We hope this is, and may long remain, unique.

Dormers are another weakness of the author's; this is an eruption which often attacks younger Architects in their desire for "Sky-line"; but why spend time on these when he could refer to Daly, Sauvageot, and Raguenet.

The Superficial-ornament shown in the plates is commonplace; and the effect would be thin and thready without the introduction of bosses, which are the soul of relief-work.

This work is virtually a Pattern-book of Architectural Trimmings; but the New Style (if we are to have one!), or, at any rate, a Good Style (which we may all have), does not come by the application of Trimmings, but by the evolving of decoration from the nature of each Material and the necessities of Construction. It results from Joints and from Tool-marks, and patiently-continued Study of our great Legacy from the Past. We are grateful to Mr. Cotton for the care and thought he has bestowed on this Book—we would that he had, instead of these Suggestions, given us some worthier results of his Pugin Tour.

* "Suggestions in Architectural Design, prefaced with Thoughts on Architectural Progress." By John Cotton, F.R.I.B.A., Pugin Travelling Student and Medallist, 1869. London: Batsford, 1896.

MAHOGANY.

ITS DISCOVERY AND VALUE.

NEARLY two centuries ago British Honduras was first colonised by mahogany hunters, and the business of cutting this valuable timber is still of paramount importance. Princely fortunes are yet made in the same line, though not so rapidly in these days of iron ships as when wood was more largely used in naval Architecture. The whole coast region, stretching southward from the borders of Mexico to the Nicaragua Canal, abounds in precious woods, and British Honduras is its very heart and centre, rich, not only in mahogany, but in the hardly less valuable rose, ebony, tulip cedar, and sandal woods, vera, ironwood, and pelo de San Juan, and caoutchouc, or Castilloa elastica, the Central American rubber tree. The Governments of Guatemala, Nicaragua, and the Republic of Honduras allow anybody to cut the trees on contracts—that is, by payments of a certain stumpage; but not so in the Queen's possession! Nowadays all the Belize mahogany lands are in the hands of a few proprietors, who will not sell a foot of them, nor admit settlers on any terms. The mahogany is a long time in reaching maturity, 200 years being supposed to approximate its prime. In regard to its rapidity of growth, we are told that "it hardly undergoes a perceptible increase of size in the narrow span of a man's life." That is, no doubt, true, after a tree has come to great size, but mahogany merchants in Belize say that young trees grow so rapidly from the stumps of a clearing as to be large enough themselves for cutting in 25 or 30 years. The trees vary much in size in different sections, and in value of wood, according to the colour and beauty of its "curl." Single logs have sometimes realised £1,000 for cutting into veneer, the wood being too heavy to be used "solid" for most purposes.

LOGS 40 FT. LONG

and 2 ft. thick are common—some of them wonderfully figured, though generally the wood is plain.

It is said that the forests of Northern Belize are more dense, and the trees more valuable, than the softer, swamp-grown wood of the interior jungles of British Honduras. The mahogany tree attains its greatest dimensions in the limestone regions of Mexico, logs squared to 48 in. being often obtained, while 3 ft. is a common size. For its popularity as a cabinet wood mahogany owes its position to the celebrated Dr. Gibbons, who had a brother in the new world, who made him a present of a mahogany log for a curiosity. The doctor thought to increase the value of his curio by having it converted into a "settle" to stand in his hall, and he employed Walleston, the court cabinet-maker, to do the work. Walleston saw at once the beauty and value of the wood, and did his work with such skill that a *furore* was created in England for mahogany furniture; and to this day the imports of mahogany to Britain alone average 50,000 tons per annum. The labours and difficulties that intervene between the great tree growing in its native forest and the manufactured furniture are enormous. Far in the depths of the

ALMOST IMPENETRABLE JUNGLE

it stands — perhaps hundreds of years old, environed with enormous buttresses of roots, extending upwards of 15 ft. or 20 ft. around its trunk, fitting props to sustain the monarch through the storm of centuries. As a rule, the mahogany contractor enters into his agreement with the owner of the territory he intends to explore near the close of the wet season. His cutters secured, who are usually Caribs or half-bred Indians, he pays them six months' wages in advance, half in cash and half in "goods"—the latter meaning provisions and needed outfit. From 30 to 50 men is the average number of each camp, and these are divided into companies of ten, each company having its own "captain." The most important and best paid man of all is the "hunter," an experienced woodsman, who leads the way into the wilderness and finds the trees for the rest to cut. They follow up the rivers into the trackless forests, beset by dangers on every hand — alligators and boas, savage animals and the deadly creeping things that infest the jungle—and, when they find a favourable spot, begin operations by establishing their camp upon the edge of the river. A big thatched hut is built for the labourers, and a smaller one, set high on stilts to protect it from prowling creatures, in which to store the bacon, salt fish, and other supplies brought from civilisation. While the camp is being made the "hunter" is exploring. He climbs the tallest tree he can find comparatively clear, and from its top detects the foliage of the mahogany. He then counts the trees in line, and notes carefully the direction, distance, and every landmark. This done, he finds and marks the tree, and returns to camp.

BYLAND ABBEY RESTORATION.

THE Byland and Wass estates have recently passed into the hands of Sir George O. Wombwell, of Newburgh Priory, and on examination it was found that the ruins of the old Abbey at Byland were in danger of, in many parts, falling to the ground. Sir George, so as to preserve the historic building, has promised so much annually towards the restoration, and at present Mr. Cornforth, mason, of Coxwold, is engaged on the refooting of the various buttresses. The Abbey is of the Cistercian order, and can be easily seen from the line of railway between the stations of Coxwold and Ampleforth. In structure the Abbey shows indications of different periods, and is supposed to date back to 1177, and its ground plan, like many other Churches of the order, has consisted of a long nave with narrow aisles, two short transepts, and a short choir. The Abbey is distinguished by

THREE PECULIARITIES

not to be found in any other Cistercian house in the kingdom—the nave of extreme length, the transept with a western as well as an eastern aisle, and the choir with a transverse aisle at its extremity. Corbels indicate that there was formerly a Galilee porch attached to the west front of the nave—a fact corroborated by the desire expressed by one William Tiplady in his will, in 1426, to be buried "in the Galilee of St. Mary's Abbey at Byland." The nave has been 200 feet in length and 70 feet in width, leaving a space of nearly 39 feet for the central part. It has been a

matter of question whether or not Roger de Mowbray, the founder of the Abbey, was buried at Byland. However, what were supposed to be his remains were exhumed here from the north-west part of the Chapter House, in 1818, by Mr. Martin Stapylton, guided to the place by ancient MSS., and conveyed in a fearful storm to the Church at Myton-on-Swale. It is said that the Lady Gundrea, mother of Roger de Mowbray, was also interred here. The Abbey, previous to Sir George O. Wombwell purchasing the estate, belonged to the late Major Stapylton, of Myton Hall. The author of "Vallis Eboracensis" says, "Byland Abbey is a magnificent ruin, and the first impression it makes on the eye of the beholder is one of awe and wonder. Standing by the side of the superb Gothic entrance at the west end of the ruined pile, through which the Lords de Mowbray, and, after them, the Plantagents in their chivalry have passed, what visions of glory seem to glide before us. The cottagers of Byland seem to partake of the sentimentality of the place, being distinguished by a dignified repose and expression of countenance quite in accordance with the venerable relics which surround them.' Byland Abbey is situated about two miles from the village of Coxwold, where is situated Shandy Hall, once the residence of Lawrence Sterne, the author of "Tristram Shandy."

NATIONAL ASSOCIATION OF MASTER HOUSE-PAINTERS.

HELD in Birmingham last week, the third convention of the National Association of Master House-Painters of England and Wales was well attended. Though the Association has only been established about three years it has already done something to elevate the Craft, but naturally its earlier efforts have been mainly directed to organisation. There are now between 150 and 200 members of the central body, whilst local Associations which claim a membership of from 500 to 600 have become affiliated. The organisation has spread itself all over the provinces, but in London it has not taken root, the explanation being that the trade in the metropolis is too large and involves many conflicting interests. The Association aims at the extinction of inferior work, and at raising the status of the trade generally. Premiums are offered for the encouragement of high ideals among apprentices, and it is hoped that the stimulus to improved work may be extended with the development of the Association to masters and journeymen engaged in the trade. In connection with the convention, an exhibition of manufactures interesting to the trade, and of the handiwork of apprentices, was arranged at the Municipal Technical School. Included in the exhibits were several fine examples of decorative work by some past masters of the Craft, chief among whom are Mr. John Taylor, of Birmingham, President of the Association for the year. The department confined to apprentices' work contained nothing very noteworthy. Specimens of graining, marbling, and lettering, showed a fair amount of proficiency, and a few panels, but nothing suggestive of incipient genius.

Mr. Taylor, in his Presidential Address, confined himself chiefly to the subject of

Education in Colour.

He advised young men to study Nature in all her moods. It might be urged that as they had to adopt a conventional treatment it was unpractical to look at the matter thus, but he denied that. Whatever tended to raise a man's taste, whatever made him dissatisfied with coarse, vulgar, inharmonious blendings of colour, had a most distinct bearing upon his work, conventional though it be. Each season has its suggestions to offer, and their work, though more conventional than that of the artist, would ever gain by a loving nature study. If a love and a high ideal were not imparted to the craftsman's work, common honesty should at least be observed. If in specifying for a job they quoted a price which they knew well it could not be executed for with credit to themselves, then let them carry out the specification loyally.

In the evening the members met. Mr. E. R. Taylor, Head Master of Birmingham Municipal School of Art, contributed a paper under the title of "A few words on the Art and Craft of the House-Painter." He contended that if the profession was to be maintained, masters and workmen must become teachers and artists. In Birmingham the apprenticeship system was practically dead, but without that or something analogous to it they could not hand down the Art and Craft of the painter. Teaching had ceased, and the craft was suffering in consequence. Art was as necessary for the simplest and least expensive furnishing of a room as for the grandest Architecture, painting, or sculpture. Technique varied in quantity and direction, but the Art was one, and was expressive of a feeling for the right relation of visible things in line, mass and colour, and was based on Nature's harmonies. The endeavour to

Inspire their Workmen

with that Art-feeling, and to guide them in its expression, appeared to him the main object of their organisation. If the workmen could gain a little Art-training, which included individual observation and expression, then their commonest work would no longer be a monotonous slavery, but a handicraft, and all they did would be permeated with Art-feeling. A new interest would be awakened which would be good for master and for man, and as that power spread, new fields would be opened for its exercise.

Mr. Edward Breakspear delivered an address on "The Delights and Uses of Colour." Having premised that colour produced in the mind of man sensations of pleasure and of pain, of exhilaration and excitement, or of soothing and rest, the speaker dealt with the subject in its æsthetic rather than its scientific aspect, pointing out the intimate relation between taste in colour and the particular stage of civilisation of a people.

Every true Decorator

would love to develop the beauty of his craft in the adornment of public and private buildings, and the meanest cottage would be deemed not unworthy of his attention. It was the province of their Association to help to educate and refine public taste; and if it were true that by much sunshine longevity was promoted, might it not be equally true that health and long life were brought about by the environment of beautiful colouring? Let no master painter take a sordid view of his position. They existed to perform a useful and important part among their fellow men.

Mr. Walter Ratcliffe (analyst to the Assoeiation) read a paper entitled "Some Considerations on Oils and Pigments." He dealt with the relation of chemistry to painting, and pleaded for a more scientific basis for the Art and Craft of the house painter and decorator. Sooner or later, he said, science, and more particularly chemistry, would become an absolute *sine quâ non*. Every material they used, whether it were oil, turpentine, or pigment, and every process they employed, whether painting, varnishing, or plastering—even whitewashing—had an exact, perfectly definite chemical or physical basis, and it was only by a knowledge of those scientific bases that any stable structure was to be built up.

"Ancient Mural Decorative Art" was the subject of an interesting paper by Mr. Thos. Bonnar, of Glasgow, illustrated with a series of lime-light views and coloured drawings. The writer mourned the fact that, owing to the rough treatment of our ancestors, there was scarcely a vestige left in Scotland of the pre-Reformation ecclesiastical mural decoration. He described colour decoration on the groined roof of Glasgow Cathedral, and others at Dryburgh Abbey, the former dating from the twelfth century, and said a comparison with contemporary work in England —where circumstances had been much more favourable for the preservation of these sacred buildings — afforded inferential proof of there being an analogous resemblance in the decorative treatment of the interiors of ecclesiastical buildings in the two countries. In the fourteenth century there must have been liberal employment for the decorative craft in England, which would compare favourably with the boasted advance of artistic tendencies of to-day. During the fifteenth and sixteenth centuries the largest number of mural paintings were executed, and most of the existing examples dated from that period; but it was much to be regretted that, owing to less careful preparations of the surfaces, these were not in such good preservation as the remaining works of the earlier days. With regard to secular decorations, Mr. Bonnar thought the earliest examples must have exhibited, in form and colour, more refined qualities, there being evidences of decadence in the later specimens, as if the artist had been working from a higher example.

Other papers were contributed by Mr. M. Lewes Crosskey (Director of the Industrial Art Department, Glasgow), Mr. John Ratcliffe, Mr. J. C. M. Vaughan, Col. Robert J. Bennett, and Mr. J. F. Allon.

THE ARCHITECTURAL ASSOCIATION.

IN consequence of pressure upon our space we have been compelled to hold over the list of prizes presented at the opening meeting, which we now append.

A.A. Travelling Studentship, value £25, and Bronze Medal: C. de Gruchy.

Essay Prize, value £10 10s., and Silver Medal: A. Stratton.

The Andrew Oliver Prize, 1st Prize, value £3 3s.: A. C. Long.

Ditto ditto 2nd Prize, value, £2 2s.: J. G. N. Clift.

The Arthur Cates' Scholarship, value £10 10s.: J. S. Lee.

Lecture Side.—*Division I.:* A. Smithers, silver medal; T. Bee, bronze medal; J. E. Franck, hon. mention. *Division II.:* P. Morris, silver medal; E. H. Evans, bronze medal; V. Steadman, hon. mention.

Studio Side.—*Division I.:* E. Bates, silver medal and certificate; J. G. N. Clift, bronze medal and certificate; R. T. Miller, hon. mention. *Division II.:* No award.

Elementary Class of Design: G. C. Carter, silver medal, certificate, and £5 5s. scholarship; W. H. Ward, bronze medal and certificate; J. S. Lee, hon. mention.

Advanced Class of Design: W. J. Devlin, silver medal, certificate, and £5 5s. scholarship; T. H. Lyon, bronze medal and certificate; E. Nicholson, hon. mention.

School of Handicraft (Carpentry): E. F. Cobb, bronze medal.

Order of Merit.—*Division I., Greek and Roman Orders:* A. Smithers, certificate and book; T. Bee, A. M. Torrance. *Elementary Construction and Materials:* A. Smithers, certificate and books; T. Bee, J. C. Hawes; *English Architecture:* R. A. S. Macalister, certificate and books; T. Bee, A. Smithers. *Elementary Physics:* A. Smithers, certificate and books; T. Bee, H. A. Douglas. *Plane and Solid Geometry:* A. Smithers, certificate and books; T. Bee, A. M. Husbands. *Mensuration, Land Surveying and Levelling:* A. Smithers, T. Bee, certificate and books; W. H. May, O. C. Hills. *Formulæ and Calculations:* A. Smithers, certificate and books; T. Bee, A. M. Torrance.

Division II.—*History of Architecture:* E. H. Evans, P. Morris, J. H. A. Phillips. *Special History Subjects:* C. W. Surrey, C. E. Varndell, P. Morris, V. Steadman, E. H. Evans, T. Tyrwhitt. *Materials, their Nature and Application:* P. Morris, certificate and books; C. F. Dawson, F. G. Adcock. *Construction:* L. C. Gregory, E. H. Evans, N. M. Doncaster. *Stresses and Strains:* P. Morris, J. H. Coram. *Drainage and Water Supply:* P. Morris, C. J. S. Holcombe, T. T. G. Donaldson Selby. *Ventilation, Lighting, and Heating:* C. W. Surrey, P. Morris, F. Cattling, N. M. Doncaster, E. W. Sloper, V. Steadman. *Specifications and Estimates:* P. Morris, F. Catling, E. H. Evans. *Professional Practice:* P. Morris, A. Hannaford, C. W. Surrey.

Extra Subject.—*Elementary Ornament and Colour Decoration:* S. Perkins, J. H. Jones, H. I. Triggs.

Banister F. Fletcher, E. Howley Sim, } *Hon. Secs.*

The Architectural Association.—The Conversazione will be held at the Church House, Dean's Yard, on Friday evening next, at 8.30, by permission of the late Archbishop of Canterbury. Entrance should be made in Great Smith Street.

Trade and Craft.

PAPER TELEGRAPH POLES.

A new invention which, it is claimed, prolongs the life, cheapens the initial cost, and materially strengthens the structure, consists in making telegraph poles of paper pulp, mixed with certain ingredients which make such poles resist the rain, dampness, heat of the sun, and insects. These poles are cast in a long iron shell, and are hollow, thus increasing their strength. They have been subjected to a thorough and practical test, and it is hoped that the claim of the inventors that paper telegraph poles will last indefinitely will prove true.

RAILWAY EXTENSION.

The Langwith section of the Lancashire, Derbyshire, and East Coast Railway is making good progress. The station buildings, which are of the usual character, have been commenced by the contractors, Messrs. Bateman & Co., of Ramsey. A girder bridge, upwards of 100 yards in length, spans the platforms and sidings. A reservoir has been erected at Scarcliffe for the purpose of supplying the station with water. Messrs. Saxby & Farmer have completed a signal-box which contains nearly seventy levers. The permanent way and sidings will be shortly completed, and it is expected that the line will be opened for mineral traffic in November or December.

SMOKE PURIFICATION.

An Italian engineer, Signor Giovani Mugna, has been experimenting with a new system of smoke purification, which is especially applicable to engine boilers, and consists of a centrifrugal fan mounted close to the chimney, and drawing its supply of smoke from the chimney, discharging it into a closed tank of water. In this tank are revolving vanes or agitators, which create a vortex into which the smoke is drawn as well as forced by the fan—that is, the smoke is sucked into the water as well as being driven from above on to it—and thoroughly washed before being discharged into the atmosphere through holes in the top of the tank.

THE LABOUR MARKET RETURNS.

A memorandum prepared by the Labour Department of the Board of Trade, for the Board of Trade Journal, states that the returns for September show very little change in the general state of employment compared with August, though, judging from the trade-union returns, the percentage of unemployed has slightly risen. Employment continues to be considerably better than a year ago. Fifteen disputes took place in the engineering and ship-building trades, and 11 in the building trades. Over 4,000 building operatives and 18,000 workpeople engaged in the engineering and ship-building industries received increases. The decreases included 100,000 coal-miners and 7,000 blast-furnacemen, but the amount of the reduction in these cases was very small.

TO STRAIGHTEN A CHIMNEY STACK.

The straightening of a chimney stack at a brick and tile works located at Earnest (Pa.) was recently accomplished in the following manner:—The stack is 122 feet high, 11 feet square at the base, tapering somewhat at the top, and weighs 400 tons. The top was found to be leaning 45 inches from the vertical line. To right the chimney, 10½ inches of brick work were removed from the foundation on three sides. As the bricks were removed square blocks of wood were inserted, until three sides of the structure rested on the blocks. Between the blocks substantial brick piers, 6 inches high, were built, leaving a space 4½ inches between the top of the piers and the bottom of the undermined brickwork. The blocks were then set on fire, and kept burning evenly and uniformly, and as the blocks were reduced to ashes the stack slowly righted. The entire work consumed one day, and the reduction of the wooden blocks to ashes required one hour.

SOCIETY MEETINGS.

The Edinburgh Architectural Society.—On the 10th inst. the members paid the first visit of the winter session to the Electric Lighting Station. There was a good attendance. The party was conducted over the building by Councillor Mackenzie, Convener of the Lighting Committee, and Mr. Newington, the Resident Engineer, who explained the machinery in an instructive manner; as some new plant was in the course of erection it added greatly to the interest of the visit.

Correspondence.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—I should be glad if any of your readers could inform me whether it is possible to *restore* a faded pencil drawing—one which has been done some 30 or 40 years. Is there any process which would bring out the pencil lines to something like their pristine blackness?

Yours truly,

"ARCHITECT."

KEYSTONES.

INSTRUCTIONS for the preparation of plans and estimates for new baths at the pierhead have been given by the Baths Committee of the Liverpool City Council. The cost is not to exceed £30,000.

PLANS for re-building the Old Bailey were, on Thursday, ordered by the City Corporation to be forwarded to Her Majesty's judges for their observations. The cost is estimated to amount to £120,000, and the report relating to the whole question will be discussed at the next meeting.

A FURTHER appeal is being made on behalf of the restoration and extension of St. Peter's Church, Derby. Three eminent Architects have reported that the tower must be pulled down and re-built. The total cost of the scheme is £6,800, towards which scarcely £2,000 has yet been promised.

AT Goole, the new Market Hall, now completed, is to be opened to-morrow. It has cost about £5,000, and, though a plain building, is large and capacious, and well-adapted for market purposes. Since the old building was burnt down, six years ago, the weekly market has been held in the streets.

ONE of the oldest buildings remaining on the Long Row, Nottingham, is about to be demolished. The structure dates back to the middle of the seventeenth century, and is largely constructed of oak. The old panelling of the room on the second storey, with its carved oak chimney-piece, is to be preserved and replaced in one of the rooms of the new buildings. It has been suggested that the Castle Museum Committee might find room at the Castle for the colonnade, which consists of old oak, and which fully shows the character of the period at which it was erected.

LIKE many other great painters, Paul Veronese was given to eccentric moods and odd habits. On one occasion he accepted the hospitality of a family at their country villa. He assumed great liberties during his visit, claiming absolute possession of his room, and allowing nobody to enter. He slipped away without bidding the family good-bye. On entering the room the servant found the sheets of the bed missing, and, after careful search, a roll was found in a corner, which proved to be a magnificent picture of "Alexander in the Tent of Darius." It was painted on the missing sheets of the bed and the artist had chosen this curious way of recompensing his hosts for their generous hospitality.

A SHORT time since a District Council was ordered to pay £3,000 to the wife and family of an inhabitant who had died owing to the insanitary state of the district administered by the Council. This judgment is being appealed against, but another District Council—the Golborne—has just succeeded in achieving a victory over the Liverpool, St. Helens, and South Lancashire Railway Company. For not completing two bridges according to Act of Parliament the Company has been fined £5 per day from May 3rd, and the fine already mounts up to £1,190.

A NEW wing of the Derbyshire Royal Infirmary has been opened for the reception of patients. The whole cost of its erection, which has been borne by Mr. Walter Evans, amounted to £12,000. The wing is intended as a memorial of Mr. Evans' late wife, and is to be called the Susan Evans wing. It will contain 42 beds.

DURING the recent gales a Goliath crane, weighing over 100 tons, employed on the Dover Harbour works, was blown over. A squall snapped the chains which held it and drove it along the rails to the head of the embankment, where it fell completely over on to the brea - water, the boiler exploding with a loud noise as it did so. Great damage was done. Not only was the crane ruined, but much timber work was destroyed.

IN China bamboo is of universal use. The windows are delicate lattice work of bamboo, and the furniture is of slender bamboo, bent and curled and plaited. The water-bucket is a good big stalk sawed off just below the joint, and made as deep as is needed above it. For a bottle a slender piece is taken and treated in the same way. If, in the confusion of building, a knife is mislaid a good sharp edge of a bamboo is taken, and it does just as well for everything, except cutting bamboo, as if it were Sheffield steel.

AN interesting addition has just been made to the Guildhall Museum, a Wood Street firm having presented to the Corporation the sign of the Ape and Apple. This inn was one of those old galleried hostelries for which the city was formerly famous, and it stood in Philip Lane, the site being now occupied by some of Messrs. Rylands' extensive premises. The date inscribed upon the effigy is 1670, and the initals B. I. M. probably represent the initials of its former owner. Strange to say, a similar piece of sculpture was recently on view in a street called the Sparrengasse, at Basle.

THE Mile End Guardians are now engaged in bringing their Cottage Home School Scheme into reasonable dimensions. As originally planned, accommodation was to be provided for 400 children, these being placed 15 in each cottage. The estimated cost was £80,000. It has been resolved by the Guardians that this sum was too heavy for the parish to bear, and revised plans have now been approved by which the cost is reduced to £59,000. It is proposed to accommodate only 320 children, and to place these 20 in each cottage, instead of 15. A deputation has been appointed to wait on the Local Government Board to obtain sanction to the new proposals.

A MEMORIAL tablet has been put up in the south transept of Ely Cathedral to the memory of the late Dean Merivale, who was for 24 years Dean of Ely. The tablet is of white Italian marble, surrounded by a moulded border of Verona marble, and bears a medallion likeness of the late Dean in oval shape. An inscription by the Master of Trinity College, Cambridge, records the fact that the late Dean was the historian of the Romans under the Empire, and adds that he was rich in learning, caustic in wit, just, wise, tender, and magnanimous.

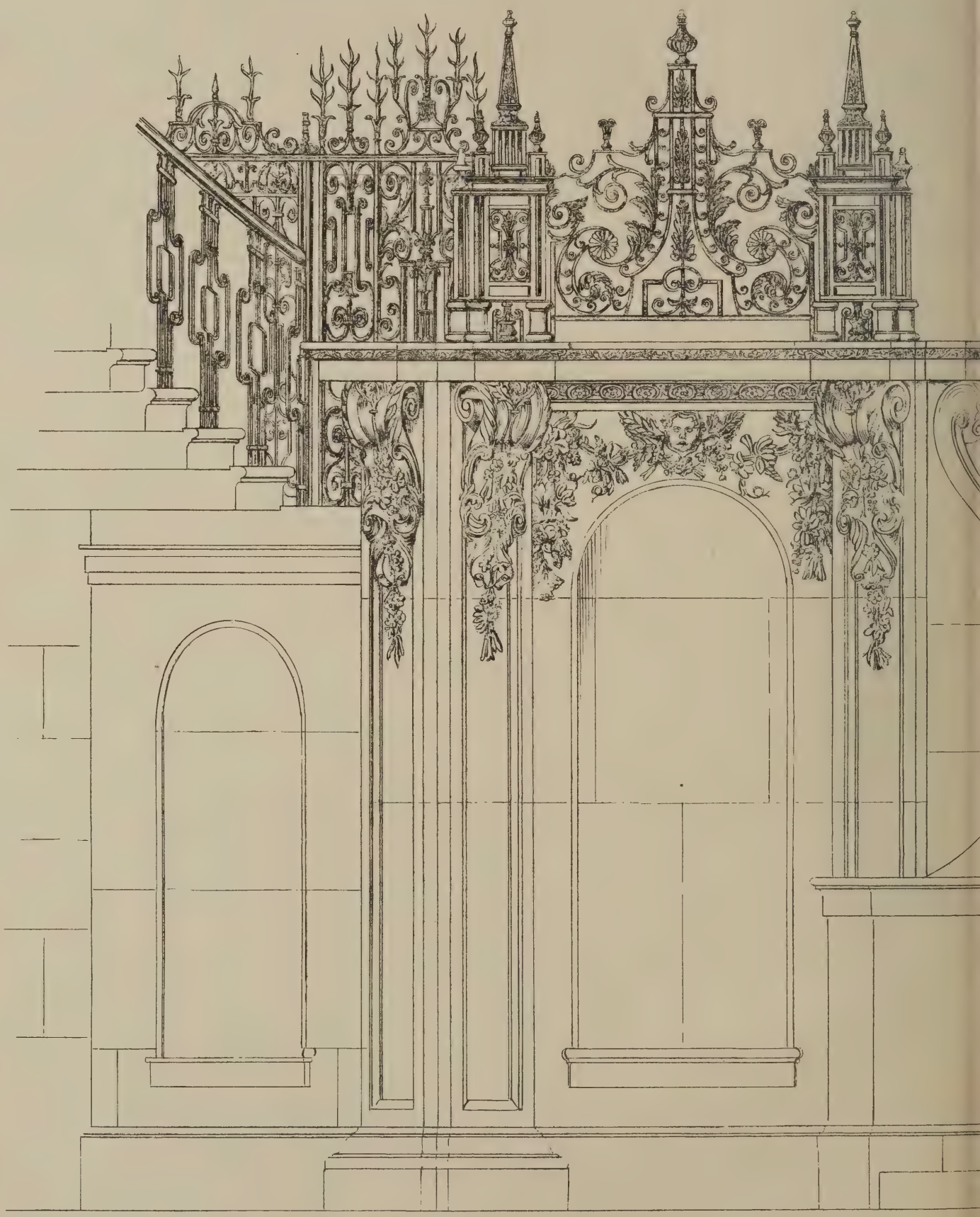
THE Northern Hollanders have come into possession of a very interesting source of lighting. About 40 years ago borings for water in the polders round the Haarlem Lake, at farms below the level of the surrounding sea, brought up inflammable gas; but as this gave no light it was neglected. Now, however, this gas is being systematically bored for, and it comes up mixed with sweet water which it makes to effervesce. The effervescing water is brought under a gas-holder, and the gas is liberated while the water flows on. About six cubit feet per hour is thus collected from each boring.

FOUR new first-class cruisers of 11,000 tons displacement have been ordered by the Admiralty. The "Argonaut," to be built and engined by Messrs. J. and G. Thomson, Clydebank; the "Ariadne," to be constructed by the Fairfield Company, Glasgow; the "Amphitrite," to be built by the Naval Construction and Armaments Company, Barrow-in-Furness; and the "Spartiate," to be built at one of the dockyards. The engines of the last named are to be made by Messrs. Maudslay, Sons, and Field, London. The vessels are to be of the same type as the "Niobe," of which four were ordered last year, one each from the three Companies name. The contract price for each cruiser is said to be about £445,000.

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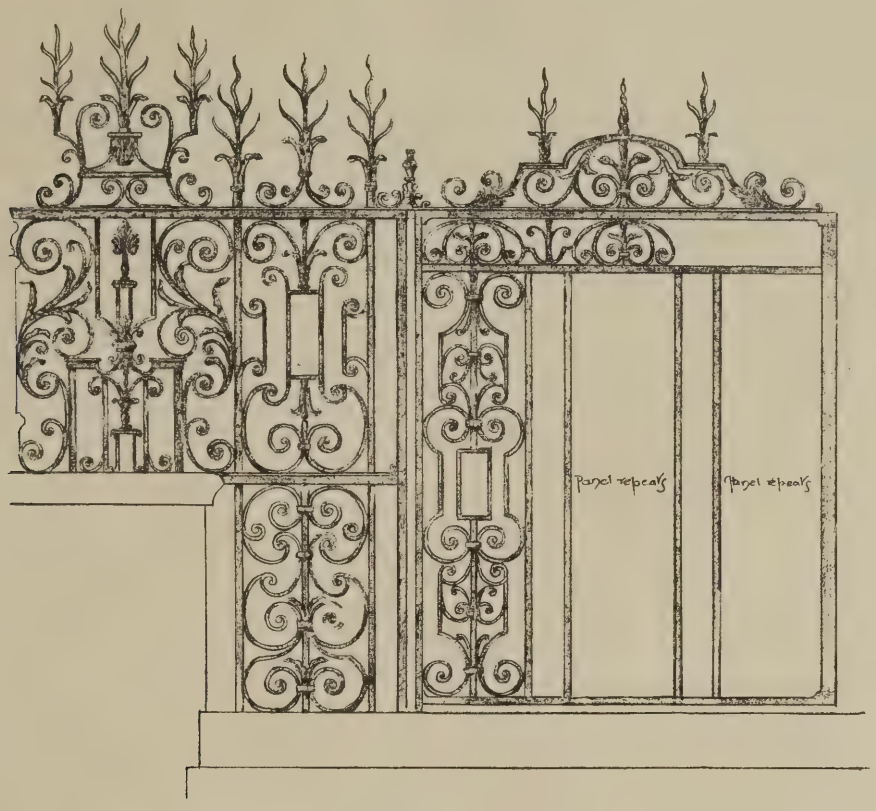
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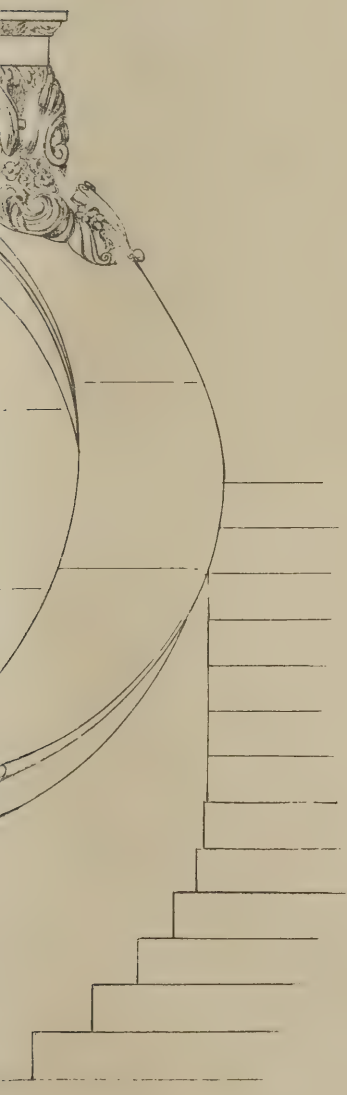


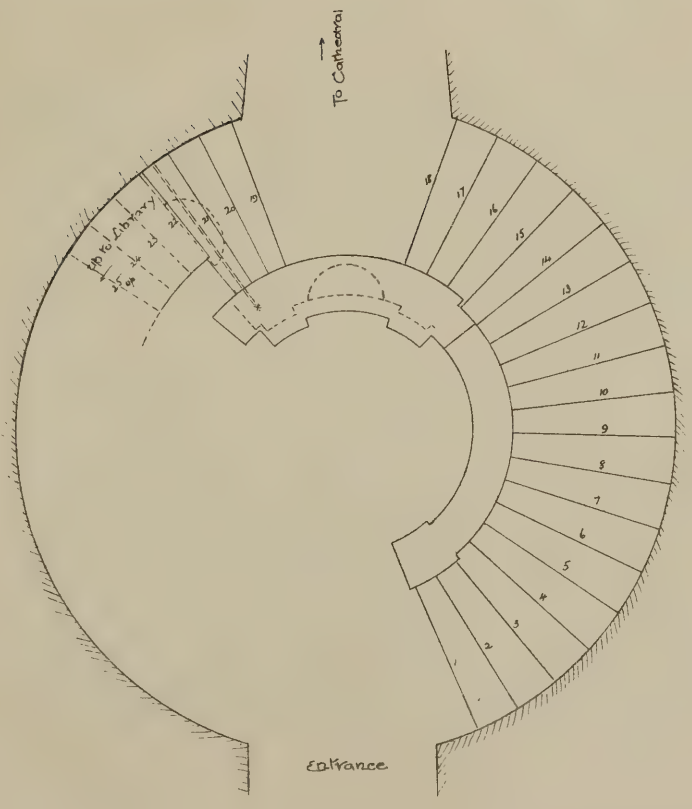
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William Henry White : A Monograph.

WILLIAM HENRY WHITE deserves something more than formal notice. In him the Royal Institute of British Architects has lost a loyal and zealous Secretary. He was the son of Dr. William White, of the Bengal Service, being born in January, 1838. His Architectural education was firstly gained under the late Mr. George Morgan. Shortly after the termination of his pupilage, in the year 1861, when 23 years of age, he went to France for further study and improvement, entering the office of a Parisian Architect as an assistant. At that time the wave of Romanticism was not yet spent, and the Gothic Style was much affected for domestic work, aided as it was by the great and increasing influence of Viollet-le-Duc ; and the studies of young White were directed towards the logical and commonsense Gothic that we in England see. Small wonder that Paris soon exercised its magical spell over him, and, after a very short time, instead of returning, he decided to remain and endeavour to make practice there. The usual patriotic French motive would somewhat militate against his early efforts, as the average Parisian prefers that his house should be built *by* a Parisian, who knows what is necessary, and what is possible under the French Building Laws. He, however, overcame their reluctance, and was making a good practice when the sad war of 1870, that ended the Imperial *régime*, made havoc among the very circle from whom his clients were derived. Among his work there is the Château de Martinvast, showing admirable restraint, such as was inculcated by Viollet-le-Duc and De Baudot. Returning to England, he found difficulty in starting practice again, and so was glad to avail himself of the influence still attaching to his father's long service in Bengal. He went to Calcutta in 1871, and was engaged in the Public Works Department of the Indian Government, designing several official buildings. Two years in India proved long enough, both for his health and his temperament ; and he left, returning to London in 1873. His Indian influence helped him again in obtaining the appointment of Examiner in Architecture at the Indian College at Cooper's Hill, and he also took up literature and journalistic work. William Henry White was distinctly well read ; he was thoughtful and individual ; he had seen much, had clear views, a quaint and pleasant sense of the humorous side of questions, and a clear incisive method of putting things ; and he soon made the influence of his presence felt in various papers he contributed to the Institute and the Association, and in certain pamphlets he published. He read a Paper, 23rd March, 1874, before the Institute, on "Government Architecture in Bengal," which was an exhaustive account of the official methods existing at that time, full of suggestiveness for improvements, and was termed by the late Sir Gilbert Scott "a very talented paper." His Indian experience made him the proper person to write the Memoir of Fergusson which appeared in the Annual Report of the Royal Asiatic Society, May, 1886, and it was sympathetic and thorough. One of his cleverest writings at that time was "On the present state of thought concerning Architecture," which he read before the Architectural Association on 23rd January, 1874. This, with an original design illustrative of it, was published, and the design (which he quaintly said had been prepared "by a friend whom I have known all my life") showed divided pediments having chimney-pots running through, with much other of the kind of



HISTORY AND ART : FLORENCE. THE CREATION OF ADAM AND EVE, BY LORENZO GHIBERTI.

detail then being introduced into Architectural design under the

CHARITY-LIKE NAME OF QUEEN ANNE,

and recessed bay-window, recalling those just designed for the New Zealand Chambers in Leadenhall Street. It was, indeed, a thinly-veiled caricature of the contemporary style of Mr. Norman Shaw, R.A. Mr. White then enunciated various principles, and proceeded to criticise his *pasticcio* very severely. Some of us remember the "Battle of the Styles," commenced by Pugin, joined in by Fergusson and others, and carried on for 20 years by various smaller men. The *odium architectonicum* was thus raised anew by White, and continued by other mediævalists, at the manner in which one of their ablest men, the designer of Cragside and Wispers, had succumbed to the blandishments of the Queen they had asserted to be dead. The effective reply White made to the foolish article in the Quarterly Review of October, 1884, was read before the Institute on 14th December following. The writer in the Review had said—"the emancipated workman, gloriously impelled, must always be and is, the only real hope of English Architecture," and White's mixture of banter and fact was a fitting rejoinder. His "Protest against the amended design for the proposed Admiralty and War Offices," published as a pamphlet in 1885, was trenchant and powerful, though a taint of political partisanship detracted from the cogency of his statements. His French sojourn left its mark on him. He was an accomplished speaker and writer in French; and he dearly loved an opportunity of reading, officially, any correspondence in that language; and to those acquainted with this amiable foible his *gargouillage* was always delightful.

FRENCH SYMPATHIES

were shown in the "Brief Review of the Education and Position of Architects in France since the year 1671," read before the Institute on 4th February, 1884. He elaborated the ideas of this into a small but very clever book—"Architecture and Public Buildings: their Relation to School, Academy and State, in Paris and London." He therein writes: "The contrast between the great works of Architecture in Paris and London is startling, even when regarded from a material and not an æsthetic point of view. On one side are conspicuous the evidences of method, refinement and care; on the other, of inexperience, hurry and confusion. A superabundance of knowledge perplexes both communities, but in Paris exuberance of fancy is subordinated to scholarly judgment; in London it is morally and materially uncontrolled. This country, it is true, has an advantage in the possession of what is called public opinion, which, in all national matters, except those relating to science, literature, and the higher Arts, is of value, and English opinion, though anything but dumb in difficult questions affecting Architecture, is incoherent. Individuals may in one case offer an alternative to ugliness, in another formulate a remedy for abortion, * * *; but even if public opinion had the power of arriving at any decision in such questions, no organization sufficiently representative to collect its suffrages, or record the result, is at disposal in London. The authorities of Paris, on the contrary, have definite artistic views. They possess a standard of taste and a power of imitation of which Londoners are wholly devoid; and throughout France there is an abundance of carefully-prepared professional talent, at the service of the State, for the design and execution of national monuments and buildings. During my

TEN YEARS' CONSECUTIVE RESIDENCE IN PARIS,

the authorities seemed to know, not only what the inhabitants wanted for the alteration and adornment of their city, but also to obtain for them what was wanted; during my ten years' consecutive residence in London, the authorities seemed not only to ignore the prevalent desire for improvements, but also quite unable to carry to completion the alterations they devised—alterations which, in almost every case, have been deemed inartistic by experts, and unsatisfactory by the public." The book is a comparison of the two systems, and contains a severe attack on the Vestrydom which had continued to rule London. Its influence has helped to rouse the Institute to a sense of its power and its duty, and to consolidate it, and further to raise the status of Architecture by improving professional education and professional tests by examinations and otherwise. In 1874, Mr. White read a Paper on "How Parisians Build Houses in Flats," and on 22nd March, 1878, gave a statement of "Paris Building Laws." This had been preceded by a Paper "On Middle-Class Houses in Paris and Central London," read before the Institute on 19th November, 1877; and he further published a pamphlet, addressed to the Duke of Bedford, entitled "Houses or Homes." This was a plea for Flats, and for such alterations in the tenure of leases as would permit of their being built. All this was

AT A TIME WHEN THERE WERE NO FLATS

to speak of, before the great development of the Flat system, and no doubt he was instrumental in that development. In his Institute Paper he had, taking an actually existing block in Regent Street, showed how that could be made healthy and comfortable, instead of the reverse, and how, without increasing the height of the building, be made more profitable as a rental investment. A pamphlet, dated 19th December, 1884, "The Antechamber," which was a spirited account of old French and English plans, as resulting from social habits and customs, was a further elucidation of his desires. Mr. White was appointed Secretary to the Institute in 1878. No doubt, at an early meeting of that body, we shall have an exhaustive and authoritative account of his work there; but we may, without descending into personal questions, note what a difficult post he had to fill. It was a period of transition, with many conflicting views, and much antipathy to new methods. The Transactions and Journal of the Institute are a monument of his indefatigable energy. He was proud of his work, and gave unflinchingly the best of his life to it. His work, gratuitously given to the Architects' Benevolent Society, deserves kindly remembrance. His labours were constant and exacting. Often the holiday recess was in great part absorbed in seeing publications through the press; and this, all sedentary, with no sufficient exercise, told at length on a constitution already slightly affected by the Indian climate. The warning came about eighteen months ago, and it was repeated in severer fashion last April. Since that time, with much pain and some anxiety about his beloved work at the Institute, he has been waiting for the relief which came in the early morning of the 20th instant. The funeral took place at Nunhead on the 22nd, in the presence of Col. White, his brother, of the President of the Institute, Professor Aitchison, A.R.A., Mr. Macvicar Anderson and Mr. Waterhouse, R.A., past Presidents, of Messrs. Emerson, Aston Webb, Phéné Spiers, Slater, Graham, Blashill, Hall, Searles Wood, Arthur Pite, and other members of the Institute, of Mr. Beazeley, Mr. Taylor, and other officials, of Dr. Wethered, his medical attendant, and of several private friends.

H.H.S.

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CARÖE, W. D., M.A., F.R.I.B.A.
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By W. N. Cumming, A.R.I.B.A.

No. I.—EXTERIORS.

IN order to explain this important subject in as simple manner as possible, I think it is best to assume that we have before us a building that we desire to put into perspective. The term "perspective" is derived from the Latin verb *perspicio, perspexi, perspectum,* "to see through"; from this we understand that an object is said to be in perspective, when viewed through a transparent medium such as a sheet of glass, and that the rays of light passing from the object through the transparent medium to the eye, form upon it an image, differing from the object as we understand it, but at the same time conveying a living representation of that object to the mind. If we look at the construction of the eye, we can understand how the rays of light act, so as to convey a correct impression of any object to the brain. Fig. 1 shows a section of the eyeball, from which you will see that it is in the form of a circular chamber; this is enclosed by a hard shell called the "sclerotic," which forms this chamber and protects the delicate interior structure. The interior of this chamber is lined with a dark film called the "choroid," which acts like the blackened interior of a photo camera, so as to absorb all the superfluous rays of light, and prevents blurring of the sight. The front part of the eye has on its surface a transparent convex membrane similar to a watch-glass in appearance, and behind this again is a diaphragm with a small circular opening in the centre; this is the "iris" or pupil of the eye, through which all rays of light pass; behind this again we have the lens of the eye, a structure filled with aqueous humour, which is exactly similar to a magnifying glass, and at the back of the eye is the screen or "retina," upon which all rays of light are focussed, to which is attached the "optic nerve," which conveys the impression created upon the "retina" to the brain

The rays of any object, such as a lighted candle as shown in Fig. 1, pass through the "cornea, "iris opening," and lens to the "retina," but are changed in direction in passing through the lens, and finally project the image of the object, "inverted" upon it; from this you would naturally suppose that we would see objects upside down, but this is not the case, *except under certain circumstances;* what process takes place in the brain to rectify this is one of Nature's marvellous phenomena, which is beyond human ken. Having now glanced at the construction of the eye, it will be easier for me to convey to you how the optic rays act to produce perspective.

Let us suppose the rays of light to be represented by lines, as shown in Fig 1, these passing from the top and bottom of the object diminish as they proceed from the object and converge upon one point at the centre of the lens; this then is the point termed in perspective "the point of sight." If I were to introduce a plate of glass between the object and the point of sight, it is evident that it would be posssible to draw upon the glass plate a diminished representation of the object; this image then may be called a perspective view of the object, and the glass plate forms what is termed the picture plane.

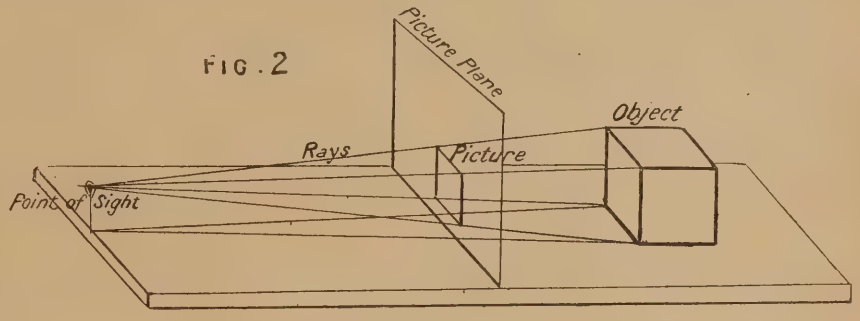


FIG. 2

To illustrate this more clearly, take a sheet of glass and set it up edgeways on a table or drawing board, about the middle, and at one end fix in a piece of wire shaped like an ordinary meat skewer with a loop at one end, and on the other side of the glass place an object such as a cube; now, by placing the eye at the loop in the piece of wire so as to look through the glass screen at the cube, you are able to draw on the glass, by means of a piece of soap, an exact representation of the cube in a diminished form. I use this illustration simply to let you understand what I mean by the cutting of the rays of light by the picture plane. Now we have clearly three separate things essential to perspective, (1st) the object, (2nd) the picture plane, and (3rd) the point of sight. If we take a cube and place it square on to the picture plane (by this I mean that one side of the cube shall be parallel to the surface of the picture plane), and we place the eye at the loop in the piece of wire, we shall have four distinct rays passing from each corner of the cube through the picture plane to the eye (Fig. 2), and these rays will be cut by the picture plane in such a manner that we shall be able to fix the four points on the sheet of glass, and, joining them, produce an exact representation of one side of the cube, viz., a square, upon the sheet of glass; on a smaller scale such a representation may be called a parallel perspective of the cube, inasmuch that we have no vanish, that is to say, no sloping of the lines, at top and bottom, to one side or the other.

If we place the cube with one corner towards us, so that we see two sides of the cube at them to some extent, but not so much as the rays passing from the corner C, D, which have not such a wide angle in consequence of this corner of the cube being at a greater distance from the eye; these rays, C, D, will therefore be cut at a greater distance from the object than the rays A, B, and therefore will be smaller. If you now make points on the glass where the rays A, B pass through, and also points where the rays C, D pass through, you will find that the distance A, B is greater than C, D, join A, C: B, D, and you will have two sloping lines on the glass: the one sloping downwards, the other upwards; it is evident then that these lines being produced will meet in a point, and this point is called the vanishing point; produce the rays from E, F similarly, and join as before with A, B, and you will have a similar vanish to the left.

We have now arrived at a general understanding of what is meant by the terms "object," "picture plane," "point of sight," and "vanishing point"; there is one more essential term in perspective, which I will explain before proceeding further, and this is the "horizon line."

You will, no doubt, have observed, that if you stand on the seashore and look at the line of the sea where it meets the sky, that it appears to be a definite horizontal line, and you may also have observed, that if you go to the top of a hill or mountain, that this supposed line rises with you as you climb, and, when at the top, appears to be still at the level of the eye.

If you glance for a moment at Fig. 4, the cause will at once be apparent. Let the line A, B represent a section of the world at the surface of the sea, and D the height of a man's eye. It will be evident, that if the sight be directed towards the point E, the sea will appear to meet the sky at that point at the level of the eye of the spectator. If he now ascends some high building or hill, say at the point F (Fig. 5), directing his gaze at the same point E, it will still appear to be at the level of the eye, and if he turns his head, directing the gaze to different points of the compass, each point will appear to rise in succession to the level of his eye; joining these points an apparently straight line will be formed, and this then is the horizon line.

This line is that upon which all vanishing lines

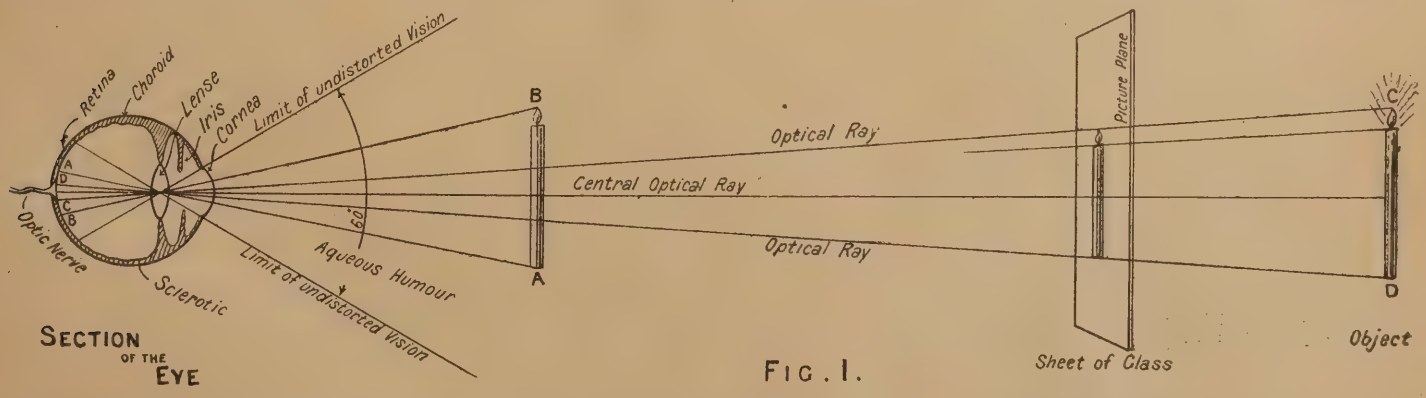


FIG. 1.

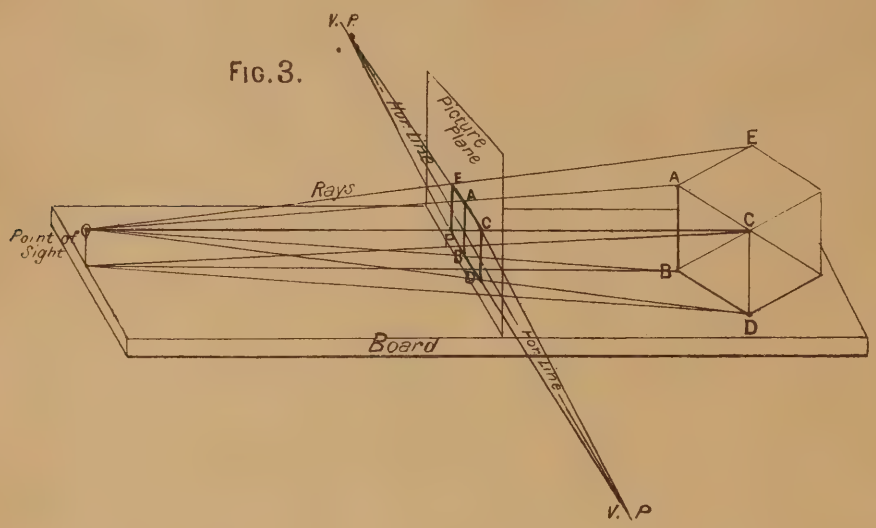
once, we shall be able to understand how this vanish occurs. Keep in mind that the nearer the picture plane approaches the eye, the more diminished objects appear. Let us take the corner of the cube, which I have called A, in diagram No. 3; it is the nearest part of the cube that is presented to the eye, and therefore the rays passing from the top and bottom A, B, have the widest angle, and it is evident that the picture plane cutting these rays at a certain point, will diminish converge, and producing these lines to their utmost limit, upon which they will ultimately meet at a point. To refer again to Fig. 3, if after producing the sloping lines at top and bottom of the cube A, C: B, D till they meet, and A, E: B, F, you join the points at which they meet, you will find that the line drawn on the sheet of glass connecting these points is level, and we have now come to understand what the fifth term used in perspective means, viz., the horizon line. Having generally

explained what is understood by these five terms, I am able to explain how to proceeed in putting any object, such as a building, in perspective.

The first process necessary is that a careful tracing be made of the ground plan of the building, showing all the various projections, openings, etc., such as wings, turrets, doors, windows, and other features. Having carefully traced this in black ink, take the various floors, 1st, 2nd, 3rd, etc., and trace them in a similar manner on the same sheet, but using a different colour for each floor, proceed with the roof plan in the same way, and you will have all the information necessary to proceed with your picture. Having completed this part of the work, fix the point of view that you wish the building to be seen from. This should never be so close as to make the extreme rays proceeding from the building to the point of sight at a greater angle than 60°, otherwise the picture will be distorted, nor should it be at such a great distance as to make the vanishing points too far away to be convenient for manipulation on the drawing board.

I generally fix the point of sight at about once and a half times the extreme width of the picture, but the exact distance suitable to each subject will come with practice. Having fixed the point of sight the next process is to fix the position of the picture plane. Should you require that the picture be smaller than the scale to which the building is drawn, you must place the picture plane between the building and the point of sight, moving it towards the point of sight to diminish, and towards the building to increase the size. That is to say, if your building is drawn to $\frac{1}{8}$'th scale, and you are desirous that your picture be drawn to $\frac{1}{16}$th, it is only necessary that you should fix some distance, such as 10 ft., upon the building, and drawing the rays from the extremes of this distance to the point of sight, shift your picture plane so that the distance of 10 ft. shall be reduced by one-half, and you will then find that all points drawn down from your building to the point of sight through the picture plane will be in exact proportion upon the picture plane, and that all heights may be put down to the $\frac{1}{16}$th scale, saving endless trouble and securing greater accuracy, especially if you are working from figures. Having then fixed the point of sight and position of the picture plane, the next process is to choose what point of the building you prefer that the eye of the spectator should be directed at. This point, I have found, generally is best taken as being the nearest corner of the building. Draw a line from this point to the point of sight and you have what is termed the central visual ray; this central ray forms an important factor in your perspective process, inasmuch as it gives you a basis upon which you work to form your picture plane in this way. Assuming that you have fixed the position of your picture plane so as to arrive at a definite scale for your picture, fix this position by a point on your central ray, and through this point draw a straight line at right angles to your central ray and you have the picture plane. Now draw rays from your plan through the picture plane to the point of sight; these rays must be taken from all corners, projections, sides of openings, &c., as shown (Fig. 7). I find it best in practice to draw these in the various coloured inks corresponding to each floor of the building: by this means one can readily distinguish the positions of the various features on the picture plane. The point where the central ray cuts the picture plane is called the measuring point, and it is from this point that you will measure all the horizontal distances on the picture plane.

FIG. 3.



The next thing to do is to find the right and left vanishing points. This is accomplished by drawing a line through the point of sight parallel to the side of the building for which you require a vanishing point: in other words, in the case of a cube, parallel to the two sides of the cube nearest the eye, and producing this line till it cuts the picture plane; this will be the vanishing point for the respective side to which this line is parallel. In practice it will be found that this line frequently cuts the picture plane at such a distance from the measuring point that it is inconvenient, and sometimes impossible to produce this line till it cuts the picture plane, but a remedy which will be found in every way practical is to divide the central ray between the picture plane and the point of sight into so many parts, say four to six. Marking these points on the central ray, draw through one of them, that is, the one nearest the picture plane, a line parallel to the face of the building for which a vanish is required, and produce till it cuts the picture plane, in a similar manner to the process described before. For instance, say you divide the central ray into four equal parts, then taking the fourth part nearest the picture plane, draw the line through this point till it cuts the picture plane, then this point will be a fourth part of the distance from the measuring point, that the vanishing point for this side of the building will be, and you have only to extend this distance four times on your picture to get your vanishing point. Having accomplished all the preliminary processes on the plan it is necessary to proceed with the picture. Now fix the height of the horizon on the elevation, that is to say, the height at which the spectator's eye will be when viewing the building. This depends to a great extent upon the situation of the building; should it happen to be on level ground, the natural height of the eye, say about 5 ft. 6 in., will be found most suitable, but in the case of the building standing upon raised ground it will be better to ascertain the height of the rise from the point upon which the spectator stands, and, deducting 5 ft. 6 in. for the height of the eye, the difference will give you the depth below the ground line of the building that the horizon should be; this is sometimes called a "toad's-eye view." Again, should the building be on a lower level than the ground upon which the spectator stands, proceed as before, with one exception, namely, that the height of the eye must be added instead of deducted.

There is another point of view, and that is a bird's-eye view, and in this case the height of the horizon should be kept well above the highest point of the building. This form of view is very desirable when you are dealing with a large extent of building, such as a hospital, where an ordinary perspective view would give a very limited idea of the extent of the building, and enables you to show in perspective the various wards, &c. Having then fixed the height of your horizon, draw a line at this point through your elevation from end to end, and from this line you will take all your perpendicular measurements, above and below.

We have now got a general idea as to the extent of our picture from the plan, by taking the distance between the extreme external rays on the picture plane. This we must mark by points upon our paper, then we measure the distance from one of these rays to the measuring point, and mark this. Taking a T-square we draw a perpendicular line through this point and mark it MP. From this line all our horizontal distances will be measured.

Next we draw our horizon line; the best position for this is, I think, at about one-third of the height of the picture. Now upon this line we mark our vanishing points, measuring them on the picture plane, taking the distance from the measuring point, remembering, if you have found your vanishing point by taking a fourth of the distance from the point of sight to the picture plane, that you must extend this distance to four times on your picture in order to get the correct distance of the vanishing point. Proceed in like manner with the two vanishing points, and we are now ready to draw the building.

I must now digress for a moment or two to point out one or two things which will be of great assistance to you in working at your perspective. One of the worries of the perspective draughtsman's life is the extreme distance of the vanishing points, on occasions necessitating a recourse to some means by which lines may be vanished to the vanishing point without that point being actually present. The usual instrument for this purpose is known as a centrolinead, and, for the benefit of those who have not seen or used one, I may say it consists of a long arm terminating in a brass plate with two projecting

FIG. 4.

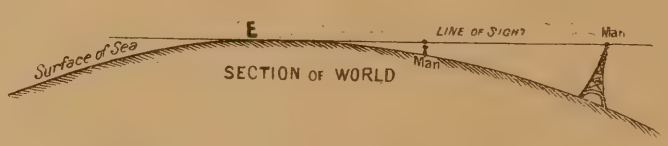
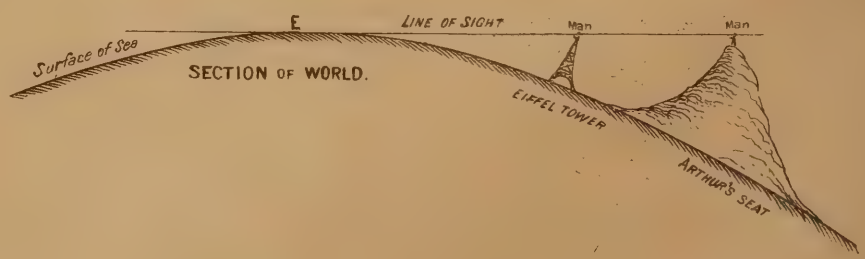


FIG. 5.

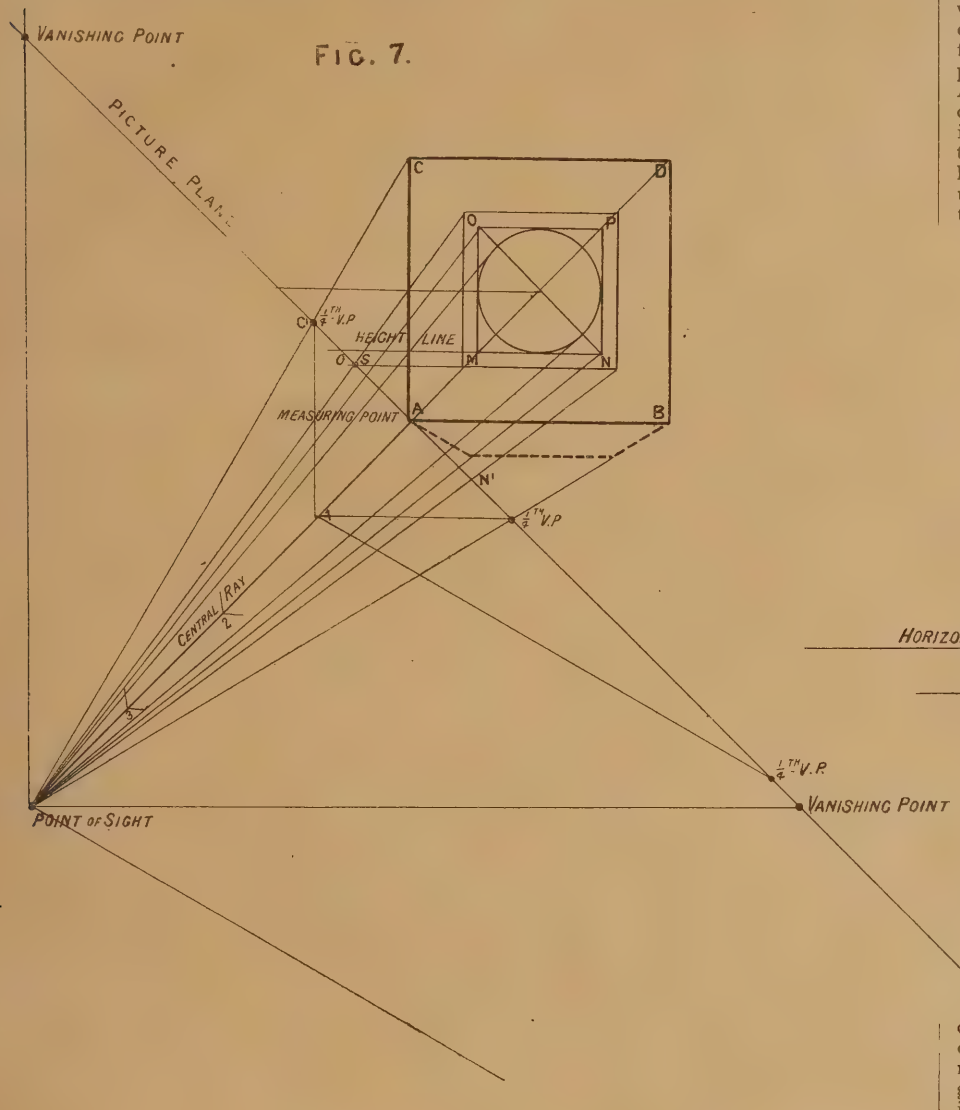


pins: to this is attached, by means of a thumb-screw, another brass plate having two semicircular slots. There are two arms attached to each other by means of a sector joint of brass, and two thumb-screws are provided, screwing into two holes in this joint. The centre pin of this joint is prolonged, and fits exactly into a small hole in the centre of the brass plate before referred to, between the two semicircular slots. The two short arms are attached to the long arm by means of the thumb-screws at the sector joint which pass through the slots in the brass plate and at the same time permit of the arms being moved within a certain limit, so that they may be set at a more or less acute angle and clamped by means of the two thumb-screws. When fixed at the required angle these arms work upon two pins placed in the board at a certain distance on either side of the horizon line, and all lines drawn along the upper side of the long arm will converge on the required vanishing point.

The centrolinead, useful though it is, has however many disadvantages, and I think a better method is to procure a thin flat piece of wood (which I shall refer to in future as the guiding lath), about two feet long, and two and a half inches broad, pin this to your drawing board in convenient position, say about 12 inches from the edge of the board, taking care that the centre of the guiding lath is placed on the horizon line, then with the vanishing point as a centre, and from it to the top edge of the guiding lath as radius strike a curve with pencil bows or beam compass, according to distance. Now remove the guiding lath from your board, first marking its position accurately, and with a fret or bow saw cut the wood to the curve marked, replace the guiding lath and pin down as before, and using your T-square in the ordinary way, with the head working on this curve, you will find that all lines drawn with the T-square will tend towards and meet exactly at the vanishing point. The ease with which the T-square can be used marks this method as being greatly superior to using a centrolinead.

(To be continued.)

FIG. 7.



ON the 27th inst., in Beeston Road, Leeds, a block of property near the Golden Lion Inn is to be demolished, by which the street will be made 50 ft. wide.

THE Nelson Corporation has resolved to expend £40,000 upon developing their gasworks, and putting down machinery on the most modern principle, and laying down new mains in Brinfield and Barrowford, as well as their own district.

A serious accident recently occurred at a house in course of erection at the corner of Wheeler Street, Vauxhall Bridge Road. A number of men were at work assisting in the concreting of the roof, when suddenly and without any warning it collapsed. The men on the roof were precipitated to the next floor and several sustained severe injuries, while others, who were at work underneath, were also injured by the falling débris.

IN Dublin the Governors of the Rotunda Hospital are now having important alterations effected in the entrance to the Round Room. A new flooring is being constructed of concrete, which will give much easier access to the building and will be an undoubted advantage to the public attending enter ainments there.

AT a recent meeting of the County Council, the Chairman of the Asylums Committee stated that the capital expenditure now contemplated for asylum accommodation was £350,000; but that, in addition to the amount a ready sanctioned, it was intended to spend about £600,000 during the next five years. The accommodation for patients would, by this means, be very largely increased.

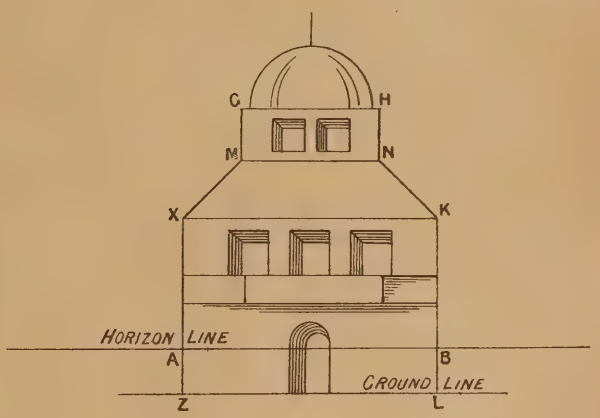
HISTORY AND ART.—A FLORENTINE OUTLINE.

(Concluded.)

BY JAMES A. MORRIS, F.R.I.B.A.

CONTEMPORANEOUSLY with the birth of European national life Florence rises into greater prominence, already filled with those dim yearnings for that individual freedom she was the first to realise, and in the struggle for the attainment of which she held the first place, even in advance of the rest of Europe. Always the most notable, although not the earliest city of that brilliant period in Italy, Florence issued from the obscurity of her earlier days during the opening years of the 11th century. With the last days of the previous century had passed away, unfulfilled, the almost universally prevalent belief that the close of the year 999 would see the end of all things earthly. But as the new century opened, and the years rolled on, and the end came not, the gloom which had gathered over Europe gradually passed away, reviving hope rose anew in men's hearts, fresh activity entered into their lives, and the era of the Middle Ages was at hand. In all countries was this influence felt, the mental strain, where not deadened, was relaxed, and human energy swung back into the national life of Europe. The religious fervour in the beginning of the century, induced by the fear of the Last Day, found expression in the erection of Churches and Monasteries, the arts received a fresh impulse, and Architecture took a new lease of life, the most brilliant since that of Greece, and flourished in all the great countries of Europe. The Crusades followed, the East was again opened to the West, where its influence was felt anew, and Italian commerce enriched her own cities and Europe with its treasures. Pisa and Genoa, among the earliest of the Republic Cities, were, with Venice, approaching the zenith of their fame. A great Art period would soon shed its first rays over the land, and already above the grey mist of its early morning were rising, bathed in its roseate light, those many mountain peaks of art, by and bye to focus on themselves its golden beams and cast them back in undiminished splendour, till flashed from point to point with unstinting hand the whole land should be enveloped in one blaze of Art. Florence concentrated on herself the high noontide of its beauty, and on the fair city of white lilies lingered longest its rays. Writing broadly, it may be taken that from the time of Cimabue (1240–1302) to the close of the 16th century there was little or

FIG. 8.



ELEVATION

NO DIVORCE BETWEEN THE ARTS.

Art, like its disciples, was many-sided, and it is difficult to say in which branch it most excelled

or whether its followers were pre-eminently Architects, Sculptors or Painters. Of the training of these men we have record and tradition, but whence came their superabundant inspiration and unfailing power we have but faint knowledge. Simple craftsmen for the most part they were; and this most of all perhaps in the earlier days. Workers in gold and silver, iron, bronze, wood or stone, their workshops often open to the streets, and whether working beneath the shadow of their own signboard, or in the less generous and more artificial atmosphere of the palaces of their patrons, of this only can we be sure, that in their Art they were simple because natural, and they did their work well because it was not in them to do otherwise. Curious it is to read the quaint old-world stories that have come down to our day, and to learn from them what manner of men they were who laboured and left those works that are so still and solemn, so far beyond our lesser selves, and our lesser work. Glowing with a wealth of colour and of colour drawing to which we cannot attain, with a delicateness of detail which we cannot rival, with a sense of bigness and directness and simplicity, of power and of reserve, of the very life and soul of Art, these men towered above our heads, their eyes beheld things to which our eyes, save through theirs, are blind, and beside their works our works, I fear, are less even than the shadow of their substance. Then think again of the times in which they lived. Cities vied with one another in arms and proud splendour, bitter feuds were rife, and factions everywhere, but Art apparently knew none such; peace-loving folk its followers for the most part seem to have been, and we read of none who came to a violent end. From one city to another they passed, welcomed and required alike by all, and they careless seemingly whether Guelph or Ghibelline ruled the land. Even the fierce tumult of street-fighting, and the enticing charm of a party brawl, seems to have but small delight for them, and failed to break the gentle tenour of their way, above whose simple calm, almost alone among Artists, rises the proud spirit of Michael Angelo, not, however, to be spent in petty feuds, but raised against the armed might of the Pope himself, and his genius reared those grim Florentine walls, before whose brown heights the armies of the Holy Church for nearly ten months were held at bay. But Pope Clement had need of Michael Angelo, and all men were not so readily forgiven as was the Great Artist, and less fortunate had been the lot of Dante, who, once exiled from his beloved Florence, its gates were never again opened to him, either in life or in death. But Dante was a politician before he was a poet, and who knows save that for the bitterness of the great death that passed over his soul in his severance from Florence, and his hopeless exile, the Divine Comedy would ever have been written as it is, if written at all! When Dante was born, in 1265, Cimabue was a young man of twenty-five. Arnolfa, seven years older, was even then probably working somewhere, as a pupil of Niccola Pisano, perhaps at Pisa, as he certainly was at Siena three years later, one of a band of journeymen or craftsmen under that great Sculptor, then an elderly man of sixty. As showing the immediate surroundings under which these men worked it is well to remember how fiercely bitter were the feuds between Guelph and Ghibelline, not only in Tuscany, but also in Florence, for upon one occasion the city was only preserved from internecine destruction by the noble efforts of the Ghibelline, Farinata, Degli Uberti, who curbed the mad fury of his victorious party, and for this his after-time enemy, Dante, commended him, and in Hades his shade utters these noble words:

> "But singly there I stood, when by consent
> Of all, Florence had to the ground been raz'd,
> The one who openly forbade the deed."

Then when in turn the Guelph had driven out the Ghibelline, they refused to allow the

PALAZZO DELLA SIGNORIA

to be built in the centre of their great public square, but only at one side; as otherwise, then in part its foundations would touch soil upon which had once stood a palace of the accursed Uberti family. Grim Gothic fierceness enough, this, surely! At this time, 1298, Arnolfa was not only beginning the great palace, but the greater Cathedral and the Church of Santa Croce had been getting themselves built by him for over four years, and many another stately edifice was rising throughout the city; and Macchiavelli says:—"Never was the town in a more happy or flourishing condition than at this time, rich in population, treasure, and aspect, having 30,000 armed citizens, and the whole of Tuscany either allied or subject to it." In 1300, Dante was chosen Chief Magistrate. Two years afterwards he is its ambassador at Rome, and in that same year, he was exiled from Florence. These were the restless times, then, in which these great buildings were reared and made rich with frescoes and paintings. Gothic Architecture had been transplanted to Assisi in 1228, fully equipped from the north, by a German named Japoco. Many Churches and Cathedrals followed in the same style, but each in succession becoming more influenced by the spirit of the land, and these were the buildings enriched by an endless succession of famous Artists, each entering upon his own inheritance, till their walls were ablaze with beauty and power. Niccola Pisano, Cimabue, Arnolfa, and Giotto, were among the giants who built and embellished in Tuscan cities, and

MADE FLORENCE RENOWNED

above all others in Italy, for love of and joy in the Arts. These men all knew each the other, and must have worked at times the one in the same building with the other. Dante, too, was of them, and, it is said, visited Giotto at Assisi, and saw his work there fresh and bright as it came from his hand; certain it is, that he got himself painted by Giotto on the walls of the Bargello in Florence, for there his portrait remains to this day. And in the Spanish Chapel of Santa Maria Novello, are painted by Simone Memmi, not only Cimabue, Petrarch, and Boccaccio, but his master Giotto also, and Arnolfa; and with Arnolfa his Cathedral, not as it is built, but as he had planned it to be. Madonna Laura, too, is there, and these all met and often talked together, and helped, doubtless, the one the other in their work, as do all true Artists of whatever time or country, willingly, and with gladness. Italian Sculpture before Niccola Pisano was not only nude but dead also. This man, however, was strong enough, not only to think, but to act for himself, only like others he had first to see, and sight came to him in certain Greek sarcophagi brought to Pisa by her commerce; and a diligent study of these opened for him a door into a new world. From labouring at the ornamental Sculpture of the Pisan Cathedral, he passed to his pulpit in the Baptistery, and eight years afterwards, when he was a man of sixty-three, he amplified his design in the pulpit of Siena Cathedral. As Niccola changed the spirit of Sculpture, so, too, Cimabue began to overstep the Archaic limitations imposed upon Painting. Greek influence was again, as with the Sculptor, the cause, and Vasari says, Cimabue "achieved little less than the resurrection of painting from the dead." His great picture of the Virgin, in the Church of Santa Maria Novello, was carried in solemn procession, and with much honour, through the streets of Florence, from the painter's house to the Church. Cimabue was a man quick and proud in disposition, and if a work failed to please him, he hesitated not to destroy it, no matter how valuable it might be; and from this surely we, too, may deign to learn. And now we come to Arnolfa, a man trained as a Sculptor and achieving renown as an Architect. In 1280, the Florentines resolved to build a great Church in honour of St. Mary: a Church which should surpass in grandeur everything previously erected. Arnolfa was chosen Architect, and by his labours therein, as well as in other buildings, Architecture made equal progress with the Art of Painting under Cimabue, by whom, indeed, Arnolfa had been instructed in the Art of Design, as he had also been in the Art of Sculpture by Niccola Pisano, the inaugurator of the revival of that Art. The Arts were now in the ascendency, men gloried and rejoiced in their creations, and between its various forms of expression there was no severance; for the men who painted, built also, and embellished their own designs with the work of the Sculptor's chisel.

GIOTTO FOLLOWED ARNOLFA,

and completed the quintette in this magnificent brotherhood of Art. He raised for him a stage higher than the walls of his Cathedral, and in the prodigality of his genius, planted by its side



HISTORY AND ART. RICCARDI PALACE, FLORENCE, BY MICHELOZZI, 1430.



FLORENCE. THE VECCHIO PALACE, BY ARNOLFO DE CAMBIO.

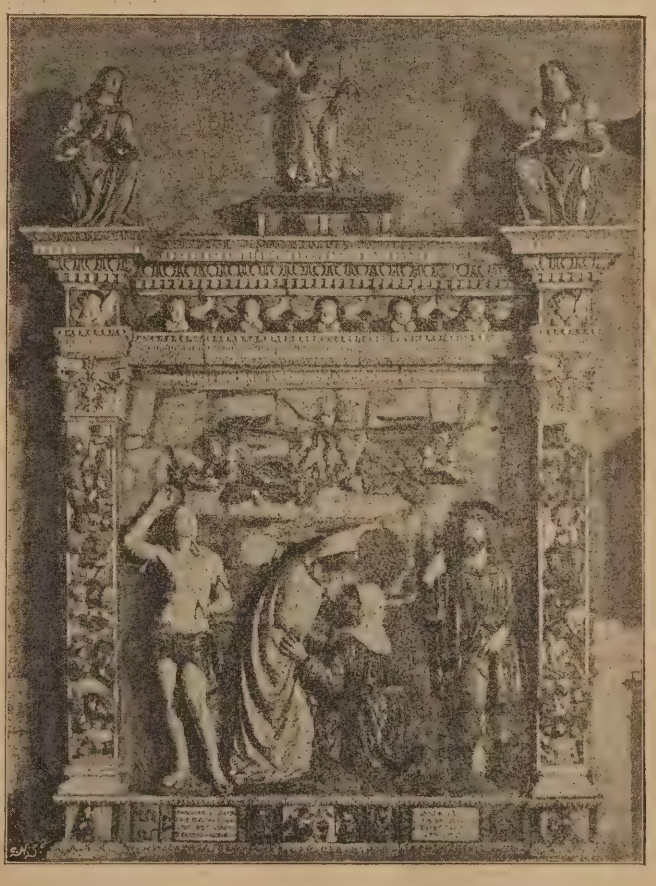
the fairest lily in all the fair city of Florence. Listen to Ruskin :—"The characteristics of power and beauty occur more or less in different buildings, some in one and some in another. But all together, and all in their highest possible relative degrees, they exist, so far as I know, only in one building in the world, the Campanile of Giotto." Giotto also enriched with his frescoes almost every Church in Florence, and in Santa Croce is to be found perhaps his most valued works ; but Rome, Naples, Assisi, Ravenna, Padua, Pisa, Lucca, and Milan, knew him also, and now share in the glory of his name. Within a period of nine years, and within 35 years of Giotto's death, had been born Brunelleschi, Ghiberti, and Donatello. Brunelleschi, who gave to Florence her blood-red heart, that dome so restful and so beautiful ; Ghiberti who made those Baptistery doors of which Michael Angelo said they were "worthy to be the gates of Paradise" ; Donatello, gentle and sweet of disposition, yet strong enough to bring back Sculpture to idealised realism, from the pictorial character Ghiberti was imparting to it. This great Triumvirate of Art, comprised men who in their early youth, the eldest just then twenty-four, had competed with others in most gracious spirit for those Baptistery gates, which Ghiberti won. And then all know the quaintly pathetic story of Brunelleschi's and Donatello's rival crucifixes, and how in the end Donatello generously said to the other, "to thee it is given to make the Christ, to me only the contadini." Brunelleschi's crucifix is now in the Church of Santa Maria Novello, and from looking at that crucifix, go to his great Pitti Palace, sublime too, but in simple mass and grandeur, and learn from it what can be done by the power of love. With these men, yet a little later, worked also Luca della Robbia, first trained, as were Brunelleschi and Ghiberti, in the art of the goldsmith. Craftsmen ever and always were these men, and being craftsmen they were

Also Great Artists.

From Fiesole, the Etruscan mother-town, subjugated long years before, came, in the divine revenge of love, Fra Angelico to paint, and Mino da Fiesole and other of her children to decorate, and make more beautiful if possible than before, this fairest of cities. Massaccio marks the advance of realism in Italian Art, and this not only in the figure but in drapery and landscape also ; and many succeeding Artists, Michael Angelo amongst them, studied, and studied most gratefully and carefully, his work in the Church of the Carmine. Massaccio gave promise of being one of the greatest masters of his age, but his early death, at twenty-seven, forbade its realization. The pictures of Botticelli, to my mind, are so full of dignity and rhythmic composition, that from them one can learn much of the spirit of Architecture. The grace, not less than the culture, which characterized all his work are doubtless his own, but the latter must have been much quickened by the noteworthy gatherings at the Palace of Lorenzo the Magnificent, wherein met all the men of the day, famous in Art, Literature, and Science ; and if you desire to learn in a delightful and popular manner who were his contemporaries, then read George Eliot's "Romola." Botticelli came strongly under the influence of Savonarola, and for some reason gave up altogether his Art, espousing instead the cause of the Reformer. Michael Angelo also came for a time under the same influence. and I think I have read somewhere that he destroyed many drawings in consequence. Of this great man, Architect, Sculptor, Painter, Poet, and much else besides, one cannot speak at length tonight ; but I think it is Vasari who has a most interesting paragraph in his book, and one which it may be good for us to consider and lay to heart. Writing of a time shortly before his death, and this was, of course, long years after Savonarola's martyrdom, we are told that "he burnt a large number of his designs, sketches and cartoons, that none might see the labours which he had endured and the trials to which he had subjected his spirit in his resolve not to fall short of perfection. If the world could judge of the Art of Michael Angelo only by the perfection of the Madonna della Fabbre, or by the Vault of the Sistine, it might not, perhaps, suspect how laborious were the means by which his works were accomplished. The series of studies for the Sacristy at San Lorenzo, show by what hazardous and successive degrees Michael Angelo elaborated his great designs. Well can the true Artist understand the jealous spirit which prompted Michael Angelo to destroy such studies, his painful essays towards some finished work and what appeared to him as the waste and marble-dust of his workshop, and it was just this waste that Michael Angelo, having ever that sense of some unattainable perfection present in his mind, sought to hide and put away." But time would fail me, and the richness of the names would overpower us, were I to tell you, even if I could, of the great princes of Art : of Alberti, Michelozzo, Bramante, of Filippo Lippi, Luca Signorelli, Ghirlandaio, Mantegna, the Bellini, Da Vinci, Raphael, Giorgione, Titian, and a whole firmament of others ; of how they laboured and attained to human perfection, in much pain, travail and disquiet, with periods of alternating exaltation and despair, as do all true Artists : despair, that is, of ever attaining to their own high ideal, and the higher, the less selfish, the more noble is that ideal, the better and the richer must ever be the work. Each individual man, while learning from others, must yet make his own Art ; and that, too, whether it be in continuance of tradition or severance therefrom, just as did these old Florentines, and as does always each true Artist, be he great or small. Accept this then, as the foundation of all good work, that a

Man's Art must be His Own,

and not another's, no matter how good that other's may be, else will his Art surely be, if not a dead, then at best to him but a dying Art. Giotto dared to break away from the accepted teaching of his day, in a simple and inoffensive manner ; and, in quietly going about his own work, and attending to his own business, he revolutionized all succeeding Art. Enthusiasm and energy are good, but quiet enthusiasm is best of all, and most potent, being without hurry or fear, because it is born of faith. Now, here is a thought, if it be worth having. The waves of the sea may cease from being still, they may rise and thunder in their might, but if you look down at them from a height, beneath which stretches a long bay you will find that not one of these waves ever hurries or breaks its solemn onward swelling roll, and yet they all reach the shore at their appointed time. I have refrained from confining myself exclusively to Architecture, for Architecture is not to be taught by me. Everyone must learn for himself, just as did Brunelleschi, who, from his continual digging about the ruins of ancient Rome, was called the "treasure seeker" ; so too by much patient and careful measuring and study of old buildings, nearly all the most able men of our own day have done, and are still doing ; and I would say, see and study such buildings by night as well as by day, and if perchance you wander through some dim aisle,



LAMPORECCHIO. ALTAR IN GLAZED COLOURS IN THE CHURCH OF ST. STEPHEN, BY DELLA ROBBIA.

or beneath the arches of a great choir, roofed or unroofed, it matters not, when the moonlight fills the whole and casts deep fantastic shadows, and streams in through traceried window and leaded glass, lighting up to life again some old tomb, and you see the spirit of the dead clay move, till

the place becomes peopled with the life of the past; then, too, from the wind sounds, and the quivering moonbeams playing in mystic fashion on ragged wall or pillar, arch, and pinnacle, then from these you will see and hear also of new forms and colours, and learn from sources you little thought of before, that "there are more things in heaven and earth than are dreamt of in our philosophy," and that Art is like the spirit, divinely born; blowing like the wind where it listeth, none knowing of its coming or going, its times or its seasons. It is from sources such as these, not visionary, but real, as real as the material elements, that I would urge you to go to learn of your Art, just as much as from Sculpture and Painting. These things are what I would call the correctives of our work, the things that lift us up a little beyond the level of our daily task; and I know of no better test than for a man to go straight from his drawing-board—although Architecture is not existent wholly there—to go straight to the picture of some early Italian master, and having been touched by its Art, to return again to his board, and see if he be satisfied with the work he has there done. Be careful above all else that your Art be a living Art, your own in truth, and not an archæological reproduction, however fine, of anything already achieved. Let "the dead past" in that sense "bury its dead." Seek to know and understand the life and the needs of your own day, the wants of your fellow men; and then, knowing these, and knowing also your Art, be not afraid to go forward though none else follow.

STRAY NOTES ON THE ARCHITECTURE OF NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

MENTION was made, towards the close of the last of this series of papers, of the transverse triapsidal plan exhibited by many Churches in the neighbourhood of the Lower Rhine, and also of the tenacity with which their Architects clung to the old national Romanesque types long after the Pointed styles had been perfected elsewhere. Both these interesting features are brought into curious juxtaposition in the Church of Gross St. Martin, at Cologne, whose tower—a sixteenth-century erection in the old Rhenish Romanesque style—rises from the crux formed by the apsidal transepts and eastern limb with a grandeur of effect perhaps unparalleled in this region of semicircular apses. The similarity borne by the Cologne Churches of St. Martin, the Apostles' and St. Maria in Capitolio, to those of Northern Italy, is too marked to be overlooked by the student of Architectural localisms. Italian Art first spread down the Rhine, and that the designer of these grand transverse triapsidal German buildings, with their clustering steeples, was greatly influenced by the Lombard Churches of Bergamo and Pavia is very evident, for, in many cases they present features absolutely identical with those North Italian examples, which, however, are less grandiose in dimension, and in general effect hardly so fine. There are several other features in connection with the Rhineland Churches to which I must draw the attention of my readers, before passing on to those in other parts of Germany. Many of these features are peculiarly local ones. The frequent use of the western apse, or, as the Germans call it, the western choir, is very noticeable. Four of the great typical Rhenish Churches present specimens of this Western apse, viz., Trèves, Laach, Mayence, and Worms. This, however, is not confined exclusively to the Rhine Provinces, for we find it—to mention only a few examples—in the transitional Church of Naumburg, in Saxony, and in the Bavarian ones of the Cathedral at Bamberg, and St. Sebald at Nuremberg. Another grand external feature of the Rhine Churches, and one to which passing allusion was made just now, is their cluster of steeples. The Abbey Church of Laach nobly exemplifies this. It is a

TYPICAL CHURCH OF THE RHINELAND,

and, although by no means hugely dimensioned, boasts no less than six, arranged thus: Flanking the short eastern limb, and in the angle formed by it and the transept, is a pair of slender square towers, terminating in low pyramidal coppings, while from the crux, in almost too close proximity, rises a low octagonal tower with a pyramidal capping of the same shape. Then, at the western end of the nave we have one of those lofty screen façades rising considerably above the roof line, flanked north and south by a circular turret, and surmounted, in the centre, by a square tower gabled on each side, and terminating in a low quadrilateral spire of a type the Germans were so fond of, and of which an interesting example occurs in Sompting Church, near Worthing. Similar spires crown the western towers which add such dignity to the Church of Andernach, as well as all those of St. Castor, at Coblentz. The Apostles' Church, at Cologne, has a noble group of steeples, which cause that building to approach nearer the North Italian models than any other, while splendid Architectural *ensembles* are presented by such clusters as those of Bonn, Mayence, Limburg, Gelnhausen, Worms, and Spires. It is worthy of note too, that the grandly dimensioned tower, central or otherwise is of much more frequent occurrence in this part of Germany than in any other. The western steeple of St. Quirinus, at Neuss, bears a striking similarity in its outline to that of our own Tewkesbury. St. Andrew, at Cologne, has an octagonal tower and spire, dwarfed, however, on its eastern side by the lofty Late Pointed choir. Gross St. Martin's, in the same city, has already been mentioned. Very pleasing are the solitary central steeples—both octagonal—of Sinzig and its neighbour, a little higher up the Ahr Valley, at Heimersheim. The former is only a very moderately sized parish Church, but the care bestowed by the Architect upon its proportions has invested it, especially when viewed from the east, with an almost minster-like dignity. It is at Sinzig that we see, on a remarkably grandiose scale, one of those peculiarly Rhenish internal features, the Männerchor, or, as it is there termed, the Mannhaus. In some degree these Männerchöre correspond to our triforia, and to the French tribunes.

IN ENGLISH AND FRENCH WORK

their existence is almost invariably concealed on the outside by a lean-to roof, though there are examples to the contrary, as in our three great Romanesque naves of Norwich, Ely, and Peterboro', whose triforia are lighted by large perpendicular windows, thus giving a double tier to the aisles viewed externally, while at Laon, where we find one of the most grandly developed triforia in Northern Europe, the same mode of fenestration, retaining, however, its original First Pointed character, prevails. In Germany, these Männerchöre play a very important part in the seating of the congregation,* and, as their name implies, are apportioned to the men. In most cases a flight of steps in the side aisle wall conducts to these galleries, which in one instance—viz., at Limburg Cathedral—extend completely round that Cruciform Church. It is, however, a remarkable fact that the Männerchor only exists in the Rhineland Churches built after the old German method early in the thirteenth century. We first encounter this gallery in St. Quirinus', at Neuss, where great importance is given to it by the slender nook shafts of black marble sustaining the pointed arcades opening from the nave. This part of the Church is invariably vaulted, and all the workmanship quite as carefully finished as in the other parts.† The Liebfrau-Kirche, in Coblentz, presents us with another very grandly developed example of these spacious galleries. None of the great Cologne Romanesque Churches have the Männerchor, the main portions of their fabrics, which escaped the conflagrations of the end of the twelfth century, having been completed before the feature in question had been so grandly developed. One Church in Cologne, only, has the Romanesque Männerchor, *i.e.*, the Anlys Kirche of St. Maternus, a rather small one, lying in a network of streets between the river and St. Maria in Capitolio. It turns up very unexpectedly though in another but little visited Church in the city,

ST. COLUMBA OF SENS,

an altogether strikingly picturesque building inside. It is, in the main, a Late Pointed Church, which has grown up around a Romanesque steeple and nave, and the Männerchor is found in the outermost of the two southern aisles, where it is formed over a vaulted gallery, dividing the arcade at half its height.* The arrangement of the chancel of this Church of St Columba, at Cologne, is highly picturesque, the altar being placed beneath an Italian Renaissance baldachino of black and white marble, with the choir stalls, etc., ranged behind it in the apse. No student of German ecclesiology should emit visiting either this Church, or those of St. Alban (hard by), St. George, and St. John Baptist. By the general run of visitors to Cologne they are neglected. The presence of the Männerchor necessitated, as I have just now mentioned, the introduction of another tier of windows above those lighting the aisles. Consequently the aisles, viewed externally, have a much too lofty appearance for true picturesqueness of grouping, as is too evident in the short naves of the cruciform Churches at Neuss, Sinzig, and Bacharach. Andernach and Boppart being transeptless, this disagreeably stilted appearance is considerably mitigated by the unbroken length of those two Churches, though even here the clerestory wall appears somewhat disproportionately low to that of the aisles. The fenestration of some of the Rhineland Churches is too curious to be passed over without comment. Although their designers persevered in Romanesque traditions, it is very clear that they were desirous of adopting a form of window that should admit a greater flood of light than those of that style. Tracery had, to a certain extent, been adopted in the buildings of France and the Netherlands at the end of the twelfth and beginning of the thirteenth centuries, and this idea the Rhineland Architects sought to carry out by the introduction, as in the nave aisles of St. Cunibert at Cologne, the Minster at Bonn, and the Liebfrau-Kirche at Coblentz, and in the clerestory of Sinzig, of foiled circles and semicircles. Of these the huge foiled circles in the nave of St. Cunibert's are the most pleasing of their class. Less so are the half-circles. But most ungainly are the elongated three-quarter ones employed in the Sion-Kirche at Cologne and in the clerestory at Boppart; they are much more objectionable than either the elongated quatrefoils with which the drum of the octagonal dome at Neuss is pierced, or than those fantastic keyhole-shaped windows which we encounter in the side aisles and Männerchor of the same Church, in the nave of the Minster at Gladbach, and in the transepts of Sinzig.

* It may not be out of place to remark that in such Catholic towns of Northern Germany as Neuss, Cologne, Münster, Paderborn, Limburg, and Coblentz, the Churches on Sunday morning are so crowded that it is impossible to effect an entrance at certain services. On such occasions these Männerchöre, filled with occupants, have a most imposing appearance. In England and France, the triforia are seldom, if ever, used for congregational purposes.

† At Bacharach, between Coblentz and Mayence, the wall dividing the aisle from the steps to the Männerchor is pierced by a most elegant triple arcade. The arches are round-headed ones, much stilted, and spring from slender pillars with boldly foliaged caps, more like French work than German.

* The use of the Männerchor was very curiously revived during the early part of the seventeenth century, in the great Jesuit Churches of the Assumption of Cologne, and of St. Ignatius, at Paderborn, where a balconied gallery cuts off the lofty arcades of those structures at about half their height.

(*To be continued.*)

WE understand that Mr. J. Hatchard-Smith acted as Architect for Messrs. Lyons in the erection of the Trocadero Restaurant, Mr. Ancell being the joint Architect.

LORD CARYSFOOT has offered to build a Protestant Church at Arklow, and to furnish the same with all requisites, including organ, the whole to cost not less than £25,000.

THE Local Government Board has sanctioned the borrowing of £17,000 for the Hebden Bridge main drain and sewerage scheme, with disposal works at Redacre Holme, Mytholmroyd, providing that the system of sewage purification chosen is a satisfactory one.

A SURVEY has been ordered with a view to carrying on an extensive enlargement of the Folkestone Harbour, and a loan of £450,000 required for the work has already been guaranteed. One part of the plan is stated to be an extension of the present mail packet pier.

TO improve the school accommodation of Pudsey, the Pudsey School Board has decided to erect a large central school to serve for the Littlemoor district and to relieve Richardshaw Lane and Greenside Schools.

Bricks and Mortar.

Talbot House, Arundel Street,
October 28th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—John Ruskin.

One interesting fact about the foundation of William Morris's furniture company has escaped record, and that is, that Dante Rossetti asked Mr. George Allen, the now well-known publisher, to join him and Morris, and work in their company. Rossetti was then helping Ruskin teach the Art Class at the Working Men's College. George Allen was one of the best pupils in the class; he was then (to quote Mr. Ruskin). "an entirely honest and perfect working joiner." Ruskin, Rossetti, the College Executive, and Allen's uncle, all knew him as a man of high character, with good eyes and brains, and cheery ways. And just at the same time came to him offers from the four sources: Ruskin asked Allen to come and work for him: Rossetti asked Allen to join Morris and him, and carpenter and do joinery for them; the College asked him to take the Hon. Wm. Cowper's offer of an inspectorship of furniture under the Board of Works; and Allen's uncle offered him a share in his carpenter's and joiner's business. Of the four offers Allen liked the last least and the first best. He went to work with Ruskin, and gradually became his publisher.

At a time when all over the country recollections of Trafalgar are being revived, it may be interesting to recall the history of Trafalgar Square, and its column. On a portion of what is now Trafalgar Square once stood the Royal Mews, while the remainder of the space was covered by a ramification of unsavoury streets and alleys styled the Burmudas, frequented by those "Town Pirates" mentioned more than once by "rare Ben Jonson." It was not till nearly a quarter of a century after Nelson's victory that the Square, whose name it was to commemorate it, was commenced, while twelve years more elapsed before Londoners saw it completed, as it is to-day, in 1841. But though this year saw the Square complete, the column remained unfinished till 1849. The statue of Nelson, designed by E. H. Baily, R.A., and ironically described as the "beau-ideal of a Greenwich pensioner," was hoisted to its lofty position on November 4th, 1843. It is, though one would hardly imagine it, full 18 ft. in height, and is formed from two stones from the Granton quarry. Those bas-reliefs at the base of the column seldom examined, we think, represent the Death of Nelson, the Battle of the Nile, the Bombardment of Copenhagen, and the Battle of St. Vincent, and they were the work of four well-known sculptors—Carew, Woodington, Ternouth, and Watson. As for Landseer's magnificent lions, which give so grand a finish to the work, they, though long talked of, only put in a tardy appearance in 1867. It must always be a matter of regret to the Londoner of to-day that the grand designs for Trafalgar Square, prepared by Sir Charles Barry, were rejected, for reasons familiar to many an Architect eager to improve the metropolis—their costliness, to wit. But, alas, the richest country in the world has always proved a niggard in such matters. What was the cost of the Square as it now exists we cannot say, but the granite work is stated to have cost a round £10,000, while the total expense of that column, which to-day receives the tributes of an awakened public, was £46,000.

The latest addition to the National Gallery is a symbolical representation of the Crucifixion by Giovanni Mansueti, a scholar and imitator of Gentile Bellini. Visitors to Venice will remember large pictures by Mansueti in the Academy, which are chiefly remarkable for their illustrations of costume and Architecture. The Architectural setting of the Crucifixion, now in the Octagon Room at the National Gallery, is quaint and interesting. The mention of Mansueti reminds us of Carpaccio, and leads us to refer to the admirable rearrangement and redecoration which have recently been carried out at the Academy at Venice. When Mr. Ruskin "discovered" Carpaccio, now some twenty years ago, and wrote up the famous St. Ursula series in the Academy, many of these pictures were very badly hung. They have now been collected into a separate room, which has been decorated in a very pleasing manner, and so arranged as to exhibit the series in proper order and "on the line."

In Liverpool, according to the statement of the Chairman of the Health Committee, during the past year five miles of streets had been imperviously paved, which made a total of 122 miles, or nearly 2,000,000 square yards, of impervious pavements. As many as 27,600 yards of flagging had been laid, including passages, and 76,000 lineal yards of pavement of various descriptions had been reinstated after disturbance by gas, water, electricity, and sewerage operations. Considerable repairs and renewals of the tramway lines had been executed. The length of roads and streets now in the city was 415 miles, as against 277 miles before incorporation. Five and a half miles of sewers had been constructed or reconstructed by the department, as against 2½ miles last year, and 3½ miles constructed by builders had been supervised. Nine and three-quarter miles had been thoroughly cleansed prior to repairs, 243½ miles of main sewers had been flushed four times during the year, and all the private drains twice, as usual. Five miles of sewers had been ventilated, as against half-a-mile last year, and 383 gullies had been constructed. In connection with the private drainage of houses, &c., the department had attended to no less than 17,000 cases, as against 12,000 last year. The total length of the sewers now in the city was 668 miles, as against 557 miles last year. Considerable works had been carried out at the sewage farms, which were now working satisfactorily. All this should speak well for the sanitary state of the city.



HULME GRAMMAR SCHOOLS, OLDHAM. J. W. FIRTH, ARCHITECT.

Alphonse Daudet has returned to Paris in fully-restored health. According to an interview published in Gil Blas, he intends to devote all his time to furthering the wishes of his late friend, M. Edmond de Goncourt, in founding the literary academy which is to bear his name. Daudet denies emphatically the rumours which have been recently circulated as to there being any hitch in carrying out the scheme. "The two Concourts between them," says M. Daudet, "enjoyed an annual private income of £480. It was the dream of their lives to found an institute which would render as many writers as circumstances would permit independent for life." According to the inventories the eighteenth-century collection is found to be a remarkably good one, and M. Daudet proposes calling shortly a meeting of experts to go into the other collections. The house, he fears, will come under the hammer along with the collections unless a syndicate can be found to buy it and devote it to the purpose of the deceased. In conclusion M. Daudet announces his intention of proposing M. Céard, the well-known author, to fill one of the two vacancies left, and regrets his inability to bring about a reconciliation between the pair before the great master died.

SCULPTURED portraits of modern statesmen and politicians have been recently introduced into Ecclesiastical Architecture. An example of this novelty may be seen in St. Giles's Church, Camberwell. Instead of the conventional Gothic grotesque heads and figures, the Ssculptor has utilised Lord Salisbury, Mr. Gladstone, and others whose names and reputation belong to the present generation. The present Prime Minister is not treated so kindly as Mr. Gladstone, for he is displayed with the ears and legs of a dog, whilst the latter bears wings. Close by Mr. Gladstone appears the late Mr. Bradlaugh, with a pair of horns on his head and a hump on his back. John Bright and Lord Randolph Churchill also figure, the latter with wings but with his mouth open, probably to indicate the power of his speech.

AT the Middlesbrough Trades and Art Exhibition, last week, many thousands of people visited and inspected the novelties. But perhaps the most notable exhibit is that of, in the crypt, a collection of fretwork models, exhibited by Mr. Old, which includes cabinets, a clock, an altar, a model of St. Paul's Cathedral, card trays, baskets, and attracts a good deal of notice. Standing out preeminently above all other models, however, is a finely executed model of Milan Cathedral. About 8,000 hours have been occupied in completing this piece of work, and between 5 000 and 6,000 pieces of wood have had to be prepared, cut, and fixed. The stained glass window, which is the largest in the world, occupied eight hours in cutting, as it required much delicacy in handling. Several of the pieces are so small that they had to be placed into position and held there on the point of a needle. The whole structure is held together with glue. The inside parts are composed of sycamore, the walls almost entirely of white chestnut, and the outer trimming of white holly. From the roof of the church there are 16 flights of stairs containing several hundred steps. The scale is almost 1 in 100, and the measurement at the base is 5ft. 2in. by 3ft. 4in., the height being 3ft. A clock which stands in the corner of the case is made of one kind of wood, and contains 400 pieces. Its height is 4ft. Mr. Old works with a machine of his own construction, into which he has introduced a pair of automatic bellows to blow away the dust which is caused while working. The machine, which was constructed ten years ago, he has improved in various ways. Owing to the proficiency now attained in this work, Mr. Old is enable to turn out the finest and most intricate work without the use of a file. A model of St. Paul's contains 400 pieces of wood, of which there are four kinds—chesnut, mahogany, walnut, and orange woods. The scale is 1 in 200.

SPEAKING at the annual meeting of the Leicester Technical Schools, Mr. W. Woodall, M.P., late Financial Secretary to the War Office, who has recently returned from a visit to Würtemberg and Bavaria, said there was hardly a great centre in any German State where the passion for higher education did not show growth of enterprise as surprising as were the evidences of what was being done when he and his fellow Commissioners visited the country in 1883. Würtemburg was until the other day given up to agriculture and forestry. It had long enjoyed a splendid school system. He and his friends visited Stuttgart, the capital of Würtemberg, and Nuremberg, long famous as the chief manufacturing city of Bavaria. Rapidly as they had lately grown, neither was more largely populated than Leicester, but it was difficult to say in which of these two centres the public provision for education was on the more generous scale. At Stuttgart, in 1884, the Polytechnic was enlarged at a cost of £75,000, and included departments for chemistry, physics, and agriculture. Since then, however, in deference to the urgent demand, imposing buildings had been erected for separate instruction in electricity, chemistry, and for building. Each of these cost about £50,000 for erection, and as much for equipment. The Industrial Museum, recently erected at a cost of £200,000, was a noble edifice, completed and furnished admirably.

THE Royal Society of Antiquaries of Ireland recently made excursions to Lucan and Leixlip, including the Parish Church of Chapelizod, where a number of rare objects of antiquarian interest were exhibited in the church porch, and the old silver plate was seen. Chapelizod was one of the manors which, at the Norman settlement, was reserved to the Crown. It continued to the 14th century part of the Royal demesne. It was then alienated, and became the property of the Delafeld, and afterwards of the White family. In the 17th century the Crown had again become possessed of a house here. Dalton says that it was situated to the left of the road entering the village from Dublin on a meadow sloping to the river It had, in his time, been pulled down, but a turret near the river indicated the position of the gardens. It was locally known as "The King's House," from having been used by William III. During the commonwealth it was occupied by Colonel Jomes. It is sketched on the Down survey as an Elizabethan mansion. It fell into decay in the last century, and was afterwards sold by the Crown. The site is now occupied by a modern house, though still called on the Ordnance Survey Map "The King's House." The turret or small towerlike building (roofed) is still to be seen at the river's bank, though a local tradition calls this the Leper-house. During the last century a considerable part of this manor was purchased to extend the Phœnix Park. Lucan, at the Norman Settlement, fell to Alard Fitzwilliam, who soon after conveyed his possessions to a Hampshire gentleman named Werris de Peche. Werris settled here, married the daughter of his neighbour, the Lord of Leixlip, built a castle, and propitiated the church by erecting a priory on the part of his land nearest to Leixlip. Before the end of the 13th century, the manor had passed to the family of De Hanstead. The town, at that time, consisted of two or three dozen of houses, with a mill and a manor court.

A REPORT has been presented to the Common Council, recommending the rebuilding of the Sessions House in the Old Bailey on its present site, at an estimated cost of £120,000. The report and plans will be ready for circulation in a few days. Some years ago the Home Office was approached with a view to the appropriation of a site for the new building on the Thames Embankment. The scheme, however, fell through, and, in the meantime, the Guildhall School of Music and the City of London School for Girls have been erected in close proximity to the spot then suggested for the New Sessions House, rendering the removal for sessions business there undesirable. The Old Bailey is by no means without its drawbacks as a site, but many of its present disadvantages might be mitigated by suitable plans. How far this has been done we shall be in a position to judge when the plans and report are ready.

LITTLE is now heard of Daguerre, the celebrated Frenchman who brought to perfection the photographic discoveries of his fellow-countryman, Niepce. The municipal councillors of the little town of Bry-sur-Marne, where Daguerre expired, in 1851, are not satisfied with the monument erected to him in his native town of Cormeilles-en-Paris, in the Seine-et-Oise, and intend to place a monument close to the house wherein the famous chemist and artist died. The plan has received Government sanction, and the monument, consisting of a marble column surmounted by a bronze bust of Daguerre, will soon be unveiled. Strictly speaking, Daguerre's house does not exist now in its original state, for it was sadly damaged by the Prussian bombardment in 1870, and the high tower wherein he made his experiments was completely destroyed. Since then the place has been utilised as a convent of the Sisters of Sainte Clotilde, who enlarged the little that remained of the old building and re-embellished the grounds which had been ploughed by shells and shrapnel. Daguerre who was by no means rich, led a very simple life in the town. He painted a picture for the parish church, and when not engaged in his own work was occupied in organising local charities and in fulfilling his duties as a municipal councillor.

ONE of the most interesting memorials of Molière, to whom the Church refused burial, is hidden away in the garden of a Dominican convent in Paris. It is a classical temple in the taste of the last century, and was built by the Duc de Praslin, the pre-Revolutionary Foreign Minister. Little is left of the original structure save an elegant but decaying peristyle, with an entablature bearing the words :—"*Ici fut la Maison de Molière.*" Scarcely 50 yards away, in the Rue Théophile-Gautier, another house has an inscription stating that it was the suburban abode of the dramatist about 1667.

WITHIN the last few years a large sum of money has been spent in Brighton to keep pace with modern needs and requirements. £73,000 was laid out in the formation of Preston Park. Another improvement has been the widening of the King's Road, including the erection of a large free shelter, with lavatories and other arrangements for persons of both sexes. In the Madeira Road, a public shelter hall and a lift leading from the Madeira Road to the Marine Parade, has been erected. This terrace is now in course of extension. A public swimming bath has been built, and a free public lending library has been formed. A technical institute has been built, at a cost of £16 000 or thereabouts, which will be shortly completed. The town also boasts a refuse destructor, and a public abattoir containing both public and private slaughter-houses. Additional outfalls have been provided to come into operation in the event of a heavy fall of rain. A site has been secured for the formation of an additional waterworks pumping station. Works have been built for the supply of electricity, the capital expenditure of which at present amounts to £140,000. Already the King's Road, the Marine Parade, and other important roads are lighted by means of incandescent electric lamps. A new street, consisting of artizans' dwellings, has been constructed, and is named Ewart Street, in memory of a late Mayor, Sir Joseph Ewart. Old dilapidated dwellings have been pulled down and new streets erected, with improved dwellings for the working classes.

AN unconscious humour is often noticeable in the reports of public bodies. An instance occurred in a recent agenda paper of the London County Council. A messenger in the Architect's Department has reached the age of 65, and under ordinary circumstances would consequently be placed upon the retired list. His conduct, however, "has been exemplary, and his knowledge of places and persons and the matters which at any moment may be required of him is such that inconvenience would certainly be caused by his leaving." His retirement is, therefore, postponed on the ground that it it took place it "would cause inconvenience to the public service." It is amusing to learn that the efficient discharge of the Council's duties is dependent upon the retention on the staff of so humble a worker as a messenger. The very least the Council should do is to grant so valuable a public officer a substantial addition to his salary.

THE question of establishing a gigantic waterway from India to St. Petersburg is once more suggested. From the confines of Afghanistan this route would pass by the Amou Darya and across the Caspian Sea to reach, by way of the Volga and the Marie river system, our capital and the Baltic. The whole project depends on the possibility of directing anew the water of the Amou Darya into their ancient bed leading to the Caspian Sea. Immediately after the occupation of Kranovodsk, in 1869, and the capture of Khiva, in 1873, a number of expeditions were sent into the Turcoman steppes to examine the ancient beds of the Amou Darya. The principal of these was that which carried on its labours from 1879 to 1884. After five years of unceasing labour the expedition reported in favour of the restoration of the ancient bed of the majestic Amou Darya, which would restore their ancient fertility to the oases of the country, and, by re-establishing the irrigation of the Turcoman steppes, would procure for the whole region abundant crops.

THE oldest Persian inscriptions are those found in large numbers at Murghale, deep down in a valley near the ancient Persepolis, and near to the much-frequented caravan road to Yezd. These inscriptions are nearly all of the period of Cyrus, are almost the only inscriptions of any note belonging to this King. They are for the most part historical, and nearly always contain a long invocation to the god Ormuzd. This deity appears to have been the sun-god, and the only god known to the ancient Persians, who were practically monotheists. Mr. Loftus discovered a large number of inscriptions belonging to Artaxerxes II. in the ruins of the royal palace at Susa, where he also found a large hall supported by columns.

These, however, were not so good as those which had been previously discovered at Persepolis. The most important and by far the largest Persian inscription known, is the one inscribed on the Behistun rock. This inscription was to the cuneiform method of writing what the Rosetta stone was to the hieroglyphs of ancient Egypt. It was the key which was to unlock the casket containing the mystery of the Babylonian and Assyrian inscriptions. This inscription was inscribed by order of Darius Hystaspes, and gives an account of the various wars in which the King was engaged. There appears to have been a general revolt of all the Persian tributary provinces about this time, which was mainly in the hands of eight conspirators, who made themselves especially troublesome by usurping the thrones of the different affected States.

THE Lancet states that the ventilation of Churches in which the worshippers are packed with an irreducible minimum of floor space, which no excess of height can compensate, is notoriously defective, and, indeed, is worse in proportion to the thoroughness of the heating, since the higher the temperature within the building the more carefully are cold draughts excluded, and were congregations generally composed of the class of persons who throng the police and county courts, the state of the atmosphere at the close of the service would be well-nigh intolerably offensive. We, therefore, have read with interest the description of a new departure in the system of combined warming and ventilation introduced by Professor H. Fischer, in the new memorial Church at Berlin, which in its general plan resembles St. Paul's Cathedral in London, though of smaller dimensions, the height of the nave and transepts being 82 ft. and of the dome 237 ft., the corresponding measurements in St. Paul's being 100 ft. and 360 ft., respectively. To the height of 80 ft. from the floor the walls are traversed by hot-air chambers, so that from the ground to the galleries 22 ft. above, there is no perceptible difference of temperature, the air being kept constantly at 15 deg. C. (60 deg. F.). The aim of the engineer has been the removal from the space occupied by the congregation of the paths followed by the currents of air conveying the warmth from the sources of heat to the radiating surfaces by placing the heating apparatus high up in the neighbourhood of the cooling surfaces, maintaining, in reversal of the usual procedure, a higher temperature in the upper portion of the building and intercepting and re-heating the cooled air in its descent towards the lower part occupied by the congregation. There are, thus, four strata of air of different temperatures. On the ground floor and in the galleries there are very few coils, but along the first entablature, at a height of 95 ft., they are sufficiently numerous to counteract the loss of heat through the walls, which are there no longer traversed by hot-air channels, and to maintain from this level to that of the second entablature, at a height of 145 ft., or 50 ft. above the first, a temperature a few degrees Centigrade higher than that in the parts below. Other coils are fixed above the second entablature and in the lantern of the dome. To avoid the dangerously chilling draughts that would follow the opening of the doors in the intense cold of a Prussian winter the entrances are provided with double swing doors and coils placed in the intervening passage. Professor Fischer maintains that the system of heating the upper more than the lower regions of the air is the only proper course in such lofty buildings as churches, for whereas with the ordinary method the air heated on or below the ground level is cooled on reaching the roof and fouled by the products of respiration, descends again on to the heads of the congregation unless withdrawn by some such exhausting arrangements as is carried out in our Houses of Parliament, in his system the fresh air is warmed to an agreeable temperature in its passage through the channels in the walls, and its ascent is favoured by the coils between the first and second entablatures, those in the dome, although they do not contribute to the warming of the parts occupied by the worshippers, serve effectually to prevent the descent of the foul air by securing its continued ascent towards, and escape through, the apertures in the lantern that crowns the edifice.

EXPERTS in book illustration will be interested in a volume which Mr. Walter Crane has been preparing for a long time for the Ex-Libris Series. His book, which may be expected about the middle of November, is entitled "Decorative Illustration of Books, Old and New." The illustrations are very numerous, and include about forty reproduced from the unique collection of early printed books which belonged to Mr. William Morris, as well as a large number of designs by modern artists.

BY petitioning the trustees to provide them with a room in which their productions may be shown and offered for sale, the copyists at the National Gallery are endeavouring to find a remedy for the bad times which have befallen them. They hint that if a portion of the Gallery is allowed to be used as a shop for the sale of mechanical reproductions by a foreign firm, English Artists who try to make their livelihood out of a similar means should at least be equally favoured. There is everything to be said in favour of such an argument, but the copyists must on their side be prepared to execute as faithful transcripts of the originals in colours as the photographers do in monochrome. Any one who visits the Gallery on students' days will find that this is usually very far from being the case.

RIPON'S New Sewage Disposal Works were opened last week by the Marquis of Ripon. These works have been constructed on Fisher Green, a mile east of the city, at the confluence of the rivers Ure and Skell, with a view to the purification of the sewage before it is discharged into the river Ure. The scheme now completed covers 30 acres of land, only 12 acres of which have at present been laid out for sewage treatment. The sewage has been diverted from the rivers Skell and Ure, by laying intercepting sewers. The land is laid out in level plots, with carriers and distributing channels. The sub-soil drains for carrying off the clarified water are laid at a depth of six feet below the surface, and the sub-soil of gravel and sand is very suitable for that purpose. The population provided for when the whole area is laid out is 10,000 persons, and the capacity of the works can be increased by putting down tanks for chemical treatment. The scheme was sanctioned by the Local Government Board, after an inquiry in 1894, and borrowing powers to the extent of £19,000 were granted. The expenditure upon the scheme so far, including portions completed or in progress, has been about £8,300, and a further amount of about £4,000 has been paid for land and incidental expenses, making the total outlay up to the present time £12,300. About £7,000 of this expenditure has been intrusted to Messrs. A. Braithwaite and Co., contractors, Leeds, and they have completed the work within six months of the specified time of completion.

WRITING to his friend Sir Charles Gavan Duffy, in the early years of the Australian gold discoveries, Thomas Carlyle expressed a characteristic doubt whether, if enough gold was produced to build a bridge from Australia to England, the world would be any the better for it. This dictum of the Chelsea sage is worth recording at the present time, when Western Australia is regarded by nearly everybody in no other light than that of an actual and potential gold-producing colony. Judging, however, from the large crop of mines and the small quantity of gold it has so far produced, this view may have to be seriously, and to the investor painfully, modified. As a matter of fact, to the millions who have to use the streets of London, Western Australia is of far more immediate importance and utility as the place where the jarrah timber grows, than as an auriferous region. Jarrah is the strongest and most durable timber in existence, and is being largely employed by the local authorities of London and other large towns for wood-paving purposes.

THE marked increase in the number of people who have visited the National Portrait collection since it has been housed in its new quarters would suggest that public interest has at last been awakened to the value of the Gallery. Beyond doubt, a good deal of this interest is to be ascribed to the fact that our national portraits have for the first time been given a setting which implies that they have some importance in official eyes. While these pictures were treated as so much lumber, worthy of house-room only in some shed or other, popular appreciation was hardly to be expected. Only a few enthusiastic experts would be likely to make a pilgrimage to a loft at South Kensington or to a branch museum in the East End of London; the general public certainly could not be expected to go on voyages of discovery in search of treasures which official stupidity had decided to hide away as unworthy of attention. The moral of the whole affair is that any collection of Art objects must, if it is to be properly appreciated, be given a surrounding that will assort reasonably with its value and importance. It is, however, not much to our credit as a nation that for this setting of the portrait collection we should be beholden to the generosity of a private individual. Had not Mr. Alexander come forward to provide the new building in Charing Cross Road the National Portrait Gallery would have still been in exile at Bethnal Green, where, certainly, it could not be said to serve any conspicuously useful local purpose. Our parsimony in Art matters has this ridiculous result, that we actually dissuade people from educating themselves by withholding from them the material that they want to study. Exactly the same absurdity is being perpetrated at the South Kensington Museum, where, for lack of space, collections of the greatest possible value remain unavailable for educational purposes.

M. MARTEL, who has exhausted most of the cave districts in Europe, is now investigating the Balearic Isles, and on Majorca he has been turning his attention to the Manacor Grotto, and has discovered a new gallery more than half a mile long and containing a lake about 200 yards in length, and between forty and fifty feet deep. The roof above is sustained by five stalagmite colonnades. M. Martel describes Manacor as marvelous, and places it in line with Adelsberg.

THREE ancient cities, Homolobi, Cleylon, and Chaves, in New Mexico and Arizona, have during the last twelve months been successfully explored by Dr. J. Walter Fewkes. Dr. Fewkes reports that in the course of the explorations he made he brought to light no fewer than fifty boxes of pottery and other relics of great importance. The collection is remarkably rich, not only in the number of the pieces, but in the high grade of the ware and the elaborate symbolic decoration painted on most of the vessels.

BY a study of the specimens of Negro Art from the West Coast of Africa in the Museum of the Trocadero, Paris, M. Felix Regnault has come to the conclusion that, in order to judge of the artistic culture of a people or a race, one should first study all their works, and not a few specimens, as is frequently done. Negro Art in copper, ivory, and wood is sometimes far above the rudeness which, by most Europeans, is supposed to characterize it.

AMONG the most recent additions to the Egyptian collection at the British Museum is a curious alabaster jar, with an inscription of Queen Amenartas praying that the gods Khnum and Basht may protect her body from her enemies. Queen Amenartas was an Ethiopian, and belonged to the same dynasty as Pharaohs Necho and Tirhaka. This dynasty appears to have reigned principally in Lower Egypt, where they made Thebes their royal city, about B.C. 500. We have also to notice three other objects of interest. A very fine red sandstone portrait statue of a scribe holding a shrine of Osiris. The scribe is represented with the usual Egyptian wig and false beard, and has a line of well cut hieroglyphs down the back. There is also a broken statue of another scribe holding a roll of papyrus. This figure is also inscribed, but the hieroglyphs are very faint. These two objects are of the period of the 18th dynasty, about B.C. 1500.

NEW buildings for the Royal Masonic Institution for Boys are proposed at Bushey, and at the recent Quarterly Court of the Governors and Subscribers, the Chairman of the Board of Management laid before the meeting a decision come to by the Board for purchasing some 68 acres of land at Bushey, Hertfordshire, for £13,000, on which to build a larger and more commodious school than the existing establishment at Wood Green, and stated that £650 had been paid by way of deposit.

ECCLESIASTICAL CARVING.

A VISIT TO MESSRS. JONES AND WILLIS, OF BIRMINGHAM.

WHILE the Arts and Crafts Exhibition at the New Gallery is attracting attention to work accomplished, it must not be overlooked that the work shops of several of the leading firms in London and the Provinces are in themselves highly interesting. It is almost a truism in Art that a thing in process—especially if it be within the range of Craft and Design—is capable of producing as keen an interest and as lively a suggestiveness as the thing completed. Especially is this the case in Carving, where an idea may be embodied in wood or stone under the Craftsman's own eye and hand. More particularly in Ecclesiastic work of this kind Art has had its chance during the last decade, and in this Renaissance such firms as those of Messrs. Jones and Willis have undoubtedly succeeded in re-habilitating what threatened to be almost as lost an Art as stained glass; an Art which, moreover, is much more domestic and comprehensive in its appeal: we refer to Carving in wood and stone, and restrained and dignified metal work. For some considerable years, Architects have been combating the difficulty of obtaining work of this kind, which shall be at once Architectural and correct in Design, and Ecclesiology for long remained without the pale of the ordinary professional practice. Men like Street and Paley set their faces in the right direction, but few followed.

Nor is this to be wondered at when we consider the low and debased level to which most interior Architectural work had fallen twenty to thirty years ago. The effect of many of our finest Churches has been utterly marred by fittings of an utterly unsuited character, and to the more educated taste of the present day the great majority of our immediate ancestors must be condemned as entirely lacking in appreciation of true Design, while the hideous outlines, the weak mouldings, the flatness and deadness of the Carving, and the coarseness of the tracery, demonstrate, surely, how far the most elementary principles of Design were disregarded. No doubt the great factor in this decadence was the apathy of Architects themselves, for few of these carried their services so far as to Design the interior fittings of their Churches. When the structure was roofed their interest in their handiwork ceased, and the fitting was left—save the mark!—in the hands of the local builder, who possessed the regulation facilities in the way of machine mouldings and stock tracery panels. Even *dilletante* knowledge of the same class of work in the present day gives one the assurance that the old machine method is fast dying out, and that now it is the exception if the Church Architect fail to carry his superintendence right through, even to the smallest detail.

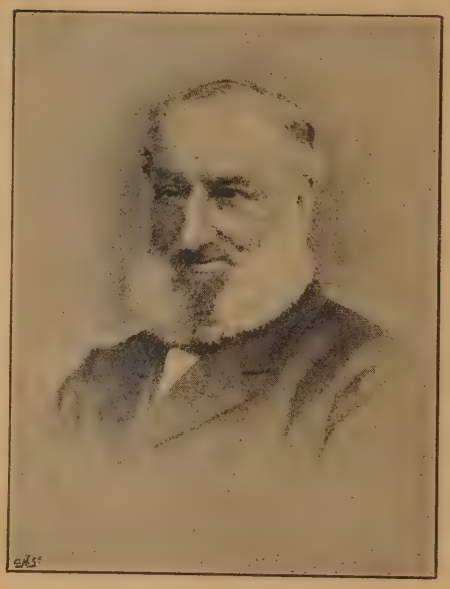
The firm of Jones and Willis has had an honourable share in this revival. Founded by Mr. Blankley Perrins Willis, in 1844, and now carried on by his three sons, the firm has its principal offices and works in Birmingham, which are under the immediate superintendence of the senior member, Mr. William Edward Willis, assisted by his son, Mr. W. P. Willis.

A glimpse round the works demonstrates the experience of the firm in matters relating to Church work. There are, also, the large works at Hornsey, and the show rooms at Great Russell Street, London, and each of these is under the personal supervision of one of the firm.

The skilled Craftsmen to be seen in the "shops" at Birmingham, work from details supplied by the Architect; the Carving, one finds, is vigorous and free, yet at the same time it is never allowed to over power the Archi-



MR. W. E. WILLIS.



MR. B. P. WILLIS.



MR. P. WILLIS.



THE JOINERS' SHOP.

tectural line; the mouldings are spirited and frank, in contrast to the machine productions turned out, per the thousand feet.

It is acknowledged that Messrs. Jones & Willis have long recognised the great benefit accruing from a close connection between the Designer and the Workman. Their works are open at all times to Architects or others, for whom they are executing commissions, so that any work in progress may be examined, or suggestions or alterations made.

A representative recently made a tour of these works, and found much interesting work in process: thoroughly well seasoned stacks of Oak, Walnut, and other woods, suitable for the delicate Carving employed in Ecclesiastical work, surround you in the yard. On the ground-floor you see the machinery used for doing the rough and laborious part of the work, shaping the various sections until they can be passed on to the skilled workman. Above this floor is the joiner's shop, recently enlarged to twice its original size. You may here see all kinds of work in process. Pulpits, Stalls, Screens, the sections fitted and adjusted with precision. From this shop you reach the Carver's shops: there it is, certainly, the most interesting part of the whole work, for you watch the quaint, the grotesque, or the beauteous of line grow under indomitable appeal of the chisel. From here you proceed to the stone and marble shops, where, among other work on hand, was the large and handsome Font in Alabaster, for St. James' Church, Handsworth. The sculptor was just completing a figure panel of the Baptism of Christ; here, too, was a very fine Memorial Cross, in Sicilian marble. The firm do a considerable amount of this class of work.

A glance through the turners' shop and the packing rooms completed our representative's visit to the works. The earnestness and capability of the firm's workmen strike you as you go through these "shops"; and it is to this fact, no doubt, that the high position attained by the firm of Jones & Willis is to be largely attributed. Spirit and sympathy, precision and care, are the essentials in all Craftsmanship.



THE STONE SHOPS.

At the fine rooms in Edmund Street, compact and well arranged suites of offices land you to offices of the Draughtsmen employed by the firm. Above these are the work rooms of the Embroideresses, which would serve as a model of what work-rooms should be. A large staff is engaged in the working and blending of richly coloured silks of various designs on many different kinds of fabrics. In designing for Ecclesiastical embroidery it is highly necessary that the Artist should be well versed in the technical knowledge of the various kinds of stitches required to produce the desired effect.

If this is not considered, much unnecessary labour may be caused, and still the result prove unsatisfactory. There were many beautiful frontals, antependia, stoles, and banners in hand, from the first sketch design to the final mounting and edging on the silk or other material. Adjoining is the room in which all the fringes required in connection with this class of work are made.

Laces, cords, and tassels of all kinds are also made in this department. These rooms form a frontage to Edmund Street, behind which are galleries used for work on view. The stand of lecterns included a replica of the ancient example from Southwell Minster, which was conspicuous by the dull gold colour of the lacquer; this being the ancient method of finishing brass. The many effects that can be produced by different lacquers and scratch-brushing were then pointed out. Close at hand were cases filled with choice examples of silver and goldsmiths' work, full of delicacy of engraving and spirit.

Here, too, are kept textile fabrics. The colourings of these, being for ecclesiastical use, are kept very soft and subdued, and woven in such a manner as to accent the principal lines of the design. This is a most important factor in Churches where it is desirable to obtain a bold effect without crudeness or sudden contrasts of colour.



WOOD CARVERS' SHOP.

Some of the firm's finest productions in the way of embroidery are also exhibited here, including the celebrated frontals executed for the 1851 London Exhibition, from the designs of the late Sir George E. Street.

A fire recently occurred at Messrs. Plant's iron foundry, Longton, Staffordshire, and the premises were completely destroyed.

VENICE has been the scene of an inundation such as has not been experienced there for eighteen years. Many of the quarters adjacent to the Grand Canal have been submerged in consequence of abnormally high tides.

IN Corea the first railway is to be built by an American, Mr. J. R. Morse. It will connect the port of Chemulpo with the capital, Seoul, which is only twenty-five miles distant. The cost is estimated at £370,000. The only engineering work of any magnitude will be a railway bridge over the Han River, 1,600 feet long.

A CHURCH Institute has been erected at Newport in keeping with the Norman style of the Church which it adjoins, and is designed to supplement the existing schoolrooms and classrooms. Whilst doing this the fine old fabric of the Church, the foundation stone of which was laid nearly 40 years ago, has been re-roofed, the interior has been renovated, electric light provided.

ON Saturday afternoon the students attending the Glasgow and West of Scotland Technical College day and evening classes in Architecture, visited Langside New Free Church, by kind permission of Mr. Alexander Skirving, Architect. There was a very large attendance of students, and they were guided over the building by Mr. Sim, the Clerk of the Works. At the close, Professor Gourlay proposed a cordial vote of thanks to Mr. Skirving and to Mr. Sim.

AT the banquet held after the election of a new master and wardens of the Painter Stainers' Company, last week, Mr. J. D. Grace referred to the antiquity of the Company, remarking that they were assembled on the same site as that on which the poor wounded soldiers and sailors under Charles II. were tended and nursed, the old hall being at that time used for the purposes of a hospital. From the time of its foundation the Company had been concerned in great charities, and had identified itself with the prosperity of the painters' art. Mr. Rowland Plumbe, the Past Master of the Company, also spoke.

Professional Items.

CARDIFF.—It is proposed to restore the Tower of St. John's Church. Mr. Fowler, in the report he recently drew up, estimated that the cost of restoring the portion that was absolutely necessary was £1,194, but the total cost would be £2,596 17s.

BELFAST. — Donegall Street Independent Church New Mission Hall and Schools have been commenced and the foundation stone laid. The plans have been prepared by Mr. T. H. M'Caul, Architect, under whose superintendence the work is being carried out; and the contractor is Mr. Geo. Alexander.

IPSWICH.—A home for aged people in poor circumstances has been erecte dduring the past few months in Stoke; and the opening of the building, which has been named the Nethaniah Home, took place last week. The Architect has been Mr. Brightwen Bunjer, and the builder, Mr. R. Girling.

BRENTFORD.—The Duchess of Teck has formally opened the buildings on the confines of Isleworth parish which have been erected as an infirmary by the Board of Guardians. It is about two years since the first stone was laid, and the work as it now appears complete shows a series of four pavilions connected by corridors, and each having three floors.

SHIPSTON-ON-STOUR.—On Wednesday last, the Bishop of Worcester opened, at Shipston-on-Stour, a cottage hospital, which has been erected at the cost of Mr. Richard Badger, of Leamington. The actual cost of the building was £1,940, and Mr. Badger has also endowed it with a sum of £3,000. Mr. E. W. Mountford was the Architect.

BITTON (GLOUCESTER).—Considerable additions have been made to Hanham Court, Bitton. A wing has been built containing kitchen and new offices. The walling is Pennant stone rubble with Bath stone mullions and dressings to match the original structure, which is an interesting specimen of the old Gloucestershire mansion. The builders were Messrs Haywood and Wooster, of Bath; the Architect, Mr. R. W. Goddard, of London.

ABERDEEN.—At the last meeting the Aberdeen Town Council had before it a report by Mr. Young London, as to the practicability of rearranging the Municipal Buildings on the present site. Mr. Young shows what can be done by a rearrangement of the buildings, and submits two schemes for consideration. The cost of the design he favours is estimated at £10,679, which would be reduced if certain suggestions he makes were carried out. Against this, however has to be set the cost of providing accommodation for the housekeeper outside the buildings. If the plan he recommends is adopted, it might not, he states, provide everything that is wanted, but would give a much improved municipal building, and in his opinion one equal to the requiremen s of the city for many years.

BENTLEY.—At Bentley, near Doncaster, the Archbishop of York last week dedicated a new Church, erected at a cost of between £7,000 and £8 000, by the late Mr. C. E. S. Cooke, of St. Catherine's. The Architect was Mr. J. Codd, of St. John's Wood, and the contractors Messrs. Shillito and Sons, of Bury St. Edmunds. The Church consists of nave, about 80 ft. long, and 30 ft. wide, with extremely narrow aisles; the chancel is 25 ft. long, and 19 ft. wide, and has an open timber roof. The organ was built by Mr. F. C. Nicholson, of Newcastle, and the East window, which was designed by Messrs. Clayton and Bell, of Regent Street, is illustrative of scenes in the life of Christ.

WIGAN.—Extensive improvements have been effected at the Public Hall. It is better lighted and ventilated, a new floor put in, and the platform re-modelled. The joiners' work has been done by Mr. D. A. Ablett, of Wigan; the anteroom has been constructed by Mr. H. L Gee, of Wigan; Messrs. Livesey and Parkinson have been responsible for the plaster work; the lighting and ventilation are by Messrs. Pickup and Co., Limited, of Bury; Messrs. Lea and Son, Rodney Street, Wigan, were the painters; and Mr. W. Mackenzie, of Ince, was the contractor for the Mosaic and masonry work; Mr. R. T. Johnson, of Wigan, prepared the plans and designs, and generally superintended the improvements.

YSTALYFERA.—The informal opening of the Ystalyfera Intermediate Schools took place on the 20th instant. The site on which the Schools are built was given by Mr. R. Fleming Gough, and is about two acres in area. The building provides accommodation for 80 boys and 40 girls, and the Schools have been arranged so as to afford every convenience coupled with economy. For the boys, chemical laboratories, workshops, &c., have been provided, and, for the girls, cooking class rooms, music rooms, &c., besides the usual class rooms and a large assembly room. Great care and attention has been paid throughout to all the sanitary arrangements,—&c. The contractor was Mr. David Rees, of Ystalyfera, and the designs were prepared by Messrs. Wilson and Moxham, architects, Swansea, and were placed first in an open competition out of a number sent in.

KILCURRY, IRELAND.—Cardinal Logue has laid the foundation stone of the new Church of St. Brigid at Kilcurry, some three miles from Dundalk. Mr. H. Byrne, of Suffolk Street, Dublin, has prepared the plans, and the execution of the contract has been given to Mr. James M'Adorey, Dundalk. The Church is to be in the Romanesque style of Architecture, comprising nave, with circular apse, transepts, side chapels, and square tower. The entire length will be 110 feet; the width across the nave, 28 feet; and the width across the transepts, 64 feet. Local limestone will be used in the erection of the Church, faced entirely with Newry granite, and lined with bricks. The dressings of the windows and doors are also to be of limestone. The arcades between the transepts, the side chapels, and the nave will be of richly-mounted Bath stone, while the columns will be of polished Newry granite. The ceilings of the apse and side chapels will be richly groined in timber, and in the nave and transepts the ceiling will be of pitch pine, open and divided into panels.

PERTH.—The style of Architecture of the new Post Office is a free treatment of the Renaissance. At the corner rises a large tower, 100 feet in height. The principal elevation will be to High Street, with a height of three stories; the elevation to the new street will be only one story high. The main entrance is situated at the base of the corner tower, there being also a private entrance in High Street, and a postmen's and mail entrance in the new street. The accommodation provided within the building is as follows:—On the ground floor is the public office. Entering from the public office are the chief clerk's room and an apartment for public telephone boxes. Adjoining the public office, and communicating with it, is the sorting office, which is of a T shape, lighted principally from the roof, and containing about 3,400 square feet of floor area. In the portion of the sorting office facing the High Street are placed the posting boxes. Along the south and east sides of the sorting office are the postmen's retiring room and lavatory, store room, bag room, strong room, and basket room, and entering from the new street is a large shed in which the mails may be received and despatched under cover. The staircase is situated at the north-east end of the High Street building, and behind it, on the ground floor is the telegram delivery room, which will communicate by pneumatic tube with the instrument room on the second floor. On the first floor are the Postmaster's rooms. On the second floor are situated lavatory, telephone room, and the telegraph instrument room, which is a lofty apartment about 40 feet long by 24 feet wide. In the basement are situated the furnace room, linesmen's room, mechanics' room, telegraph engineers' store room, and the battery room, in which will be placed the batteries required for working the telegraph instruments.



MESSRS. JONES AND WILLIS.—A CORNER OF THE CARVERS' SHOP. SETTING OUT THE CARVING.

NEWPORT, MON.—The work of carrying out the alterations and improvements at Newport Railway Station, at an estimated cost of £5,000, will be commenced forthwith. The contract for the work has been secured by the firm of Messrs. A. S. Morgan and Co., Newport. The alterations will be chiefly on the down side, that is to say, the nearest High Street, and include an independent luggage office for the convenience of passengers for the Western Valleys. The telegraph office, waiting rooms, and lavatories are to be enlarged, whilst on the up side of the platform a booking-office will be provided.

GOOLE.—The new Market Hall that has recently been erected at Goole, from the designs of Mr. W. J. Tennant, of Pontefract, was opened on Thursday. The site for the erection of the building was purchased from the Goole Market Company by the Goole Local Board, for the sum of £4,000, when the original Market Hall was burnt down five years ago. The building has cost upwards of £4,000, a total of close upon £10,000 being paid for the site and hall.

CARDIFF.—A new Schoolroom in connection with Bethel Chapel, Mountstuart Square, the Docks, was opened on Thursday afternoon. The Schools have been entirely pulled down and re-built, taking in an additional piece of ground which the committee fortunately were able to acquire. The structure has been substantially erected from plans under the superintendence of Messrs. J. P. Jones. Richards, and Budgen, Architects, the contract being let to Mr. G. H. Parr, for £1,090. The building being at the rear of the Chapel, and bordering upon the canal, no attempt has been made at ornament, the main idea being a large central hall on the ground floor, with gallery running all around, from which numerous class-rooms are entered. Access is given to the gallery from the ground floor by two staircases adjacent to the platform, and also by a wide staircase in the entrance lobby.

LIVERPOOL.—In the matter of educational facilities Everton is quickly attaining a position which will make the township in this respect at least the envy of some of the less favoured districts of Greater Liverpool. It was only the other day that a magnificent new library and technical school was formally opened in Everton. Besides this, there is an elementary day school, which is being erected by the Liverpool School Board, approaching completion. The building is erected upon the gardens of two old Everton mansions. After a keen competition, the designs of Mr. Wm. Rushworth, of London, were accepted, and from his plans the school has been built. In point of size, perhaps, the building is not superior to what is considered the Board's best school—the Rathbone; but in many respects it excels, compared with almost all the others. The building is divided into four separate departments, viz., infants, mixed juniors, senior girls, and senior boys. In the aggregate the school will accommodate 1,312 children—412 infants, 300 mixed juniors, 300 senior girls, and 300 senior boys. The contract price was £13,147.

GLASGOW.—The Duchess of Montrose on Thursday performed the opening ceremony in connection with the new Glasgow Hospital for Cancer. Six years ago was inaugurated the institution which the one just completed is intended to replace. The accommodation having become insufficient to meet the demands, the Directors purchased two detached dwelling-houses in Hill Street, Garnethill. These were altered and joined according to plans prepared by Mr. Andrew Myles so as to form one large and convenient building. The work has been carried out, and there is now accommodation for thirty-three patients, as well as for a staff of fifteen nurses, besides a pathological department, an operating theatre, and rooms for carrying on the growing outdoor dispensing department. In every respect the hospital has been well equipped; it is lit by electricity; and the various rooms are connected with the administrative department by telephone. When completed it is expected that the work will have cost £7,000.

GLASGOW.—In connection with the Glasgow High School Construction Classes, it is intended to pay monthly visits to buildings of note in progress in Glasgow, and the first of these was held on Saturday, when about 50 to 60 of the students visited the Empire Theatre under the guidance of Mr. Bennett Dobson. The building is seated for 3,000, the pit and stalls alone accommodating 700. Gas and electricity are employed jointly, and there is an arrangement whereby in the warm weather a large portion of the gallery roof will slide back. The stage, which is provided with a fireproof curtain, worked by hydraulic power, is about half the depth of the entire house. The style adopted is that of the Italian Renaissance. The building will cost about £40,000, and will be completed in February next. The Clerk of Works is Mr. James Davie.

BEMERTON.—St. Andrew's, Bemerton, near Salisbury, widely known as the Church of which the great George Herbert was pastor, has been under restoration for the past two years from the designs and under the direction of Mr. Charles E. Ponting, Architect, of Marlborough. The practically finished work was dedicated by the Bishop of the Diocese on the 20th inst. The walls, which, before the renovation, had nearly fallen in, have been straightened; the nave roof, formerly plastered, has been reconstructed of open oak, as much of the old material as possible being used therein. The chancel roof is entirely new. The chancel floor has been laid with Sicilian marble by Messrs. Powell and Sons, of Whitefriars, E.C., and the nave has been paved with oak blocks. The altar is of Devonshire marble, with mosaic inlaid, and there are new altar rails of oak. The carpentry generally is by Mr. G. Powell, of Bemerton, and Mr. Barrett, of the same place, carried out the masonry. The total cost has been about £520.

POUNDSTOCK.—The Parish Church, after partial restoration, was opened on Wednesday last. It has been a very arduous task, and about £1,800 was only sufficient to do a part of the Church, leaving a debt of £200 on account of the partial restoration. The tower, transept, and porch have had to be left untouched, and about £500 is wanted only to put the Church into decent order. There is nothing (not so much as a stove) to warm the Church in winter; the old bench ends cannot be repaired; the old communion rails and remains of the old screen have been packed away for want of money to repair them; there are no reading desks, lectern, or choir stalls, and in fact another £1,500 is required to make the Church anything like what it should be and was in olden times. The present work was begun about 11 months ago, and was carried out according to the plans of Mr. Fellowes Prynne. The contractor was Mr. Wiffen, of Holsworthy. Many interesting old pieces of work have been found. One old gravestone was used as a window sill, and on turning it round it was found that it had a fine large cross on it, evidently shewing that it was centuries old. There was evidently a very much older and smaller Church on the same site as the present. The arch at the south-west entrance is very old, and looks like Doulting stone, the quarries of which date from more than 1,000 years ago. The font is of Transition period, twelfth century, and shews what a long time there has been a Church in the parish. Most of the old work, however, is fifteenth century, with a Jacobean pulpit elaborately carved and in a fine state of preservation. The Puritans, evidently with axes and hammers, did away with much of the carved work, plainly having hacked out the east window, and otherwise mutilated what was interesting and beautiful. The old stocks for a long period have been used as a seat in the belfry.

A BUST of Sir Joseph Barnby, subscribed for by the members of the Royal Choral Society, was unveiled at the Royal Albert Hall last Monday.

AN inquiry was recently held by Colonel Langton Coke, M. Inst C.E., one of the Inspectors of the Local Government Board, into the Blackburn Corporation's application for power to raise £28 000 on loan for electric lighting, and £10,000 to be applied to the purposes of electric traction.

THE Duke of Devonshire has written to the secretary of the newly-formed Thames Navigation Committee, expressing his approval of the proposal that a new lock should be constructed in the Thames near Wandsworth, and promising to assist the movement by promoting a Bill in Parliament if necessary.

WOOD CARVING AT CARPENTERS' HALL.

AN instructive collection of works in wood and wood-carving was opened in the hall of the Worshipful Company of Carpenters, near the Broad Street end of London Wall, on Monday. The organizing of the Exhibition is the joint work of the Carpenters' Company and the Worshipful Company of Joiners, and, until the middle of November, will be free to the public from 11 to 6, and on Mondays and Fridays from 7 to 10 also. When so much is being said about British shortcomings in technical skill it is gratifying to hear that these successive displays have each shown a very perceptible advance in work of this kind. There seems to be no doubt that our technical schools of one sort and another, and the efforts that some of the City Guilds have been prodded into making of late years, are telling powerfully on Industrial and Artistic affairs. There are said to be specimens of work in this Exhibition which have taken no prizes, but which would have occupied a position in the first rank in the earlier shows. It is believed, too, that this year's display would have been even better than it is but for the fact that wood-carving during the past twelve months appears to have been in great request, and many who might have been competing in this exhibition have been too busy about other work. That, at any rate, is the suggested explanation of one or two conspicuous defaults in the collection. For instance, the offer of a special prize of £20 and a gold medal for a carved oak font-cover, which might have been expected to call forth the best efforts of a great many competitors, has, in fact, brought only five specimens of work, and neither of them has been deemed by the judges to be of sufficient merit to deserve awarding the prize. The Exhibition consists of two sections, one for the display of new work by any British subject, the other a

LOAN COLLECTION

of any objects of interest connected with the general subject of the Exhibition, ancient or modern. Among the most interesting collections on loan is that of Mr. Phipps, of Norwich. This collection consists of types of all the most important insects known to be injurious to forest trees and timbers, and is part of Mr. Phipps' unique collection of damaging insects and collection of damaged woods. The insects are well preserved and shown in suitable cases, with clear, brief notes appended. The specimens of damaged wood are substantial pieces, and have been collected from numerous quarters; for instance, four have been taken from the Royal Mail Jetty, Holyhead, and show the ravages of three classes of insects on four kinds of timbers; a barrel stave from India, barks from Canada, leaves and galls from the Continent, hard wood of various kinds from timber yards in all parts of the world, two pieces of fir from Lowestoft Harbour, and others, too numerous to detail, but well deserving a visit and inspection by students in Economic Forestry, and those interested in works in wood. Mr. Leopold Rothschild has sent a carved seat on loan, and Mr. Guy F. Lakin contributed a very interesting 15th-century oak cabinet. South Kensington Museum lends a fine chimney-piece of carved oak, from a hunting lodge of King James I, at Bromley-by-Bow. It is dated 1606, but it looks almost new. It is an admirable piece of work, but it has not been publicly shown before, simply because South Kensington has no room to show this and a vast store of other interesting things. An exceedingly beautiful piece of work, in the form of a jewel casket, carved in pearwood, is shown by Messrs White, Allom and Co. The other section of the Exhibition is ranged in six divisions, which may be cited as affording an idea of the scope of it. Division I. is for Models in Constructive Carpentry; Division II. is for Models in Ornamental Carpentry; III., Models or Specimens of Joinery; Division IV. is for "the trade" in Cabinet-making and Art Wood Manufacture. Divisions V. and VI. are for various branches of handwork carving. In the first division, which is sub-divided into 6 classes, Mr. Joseph Fisher takes the first prize of £5 and a bronze medal for a model of a "Queen post roof truss." A similar award is made to Mr. A. H. Blackwell for a model of a "Hanover beam roof" in class 3. In class 5, a first prize of £4 and a medal falls to

Mr. John Perrin for a model of a grand stand, and in class 6, Mr G. H. T. Smither takes the leading prize of £4 and medal for a staging for carrying a steam crane. In several other classes only minor prizes have been awarded.

FOR CARVING WORK

in Division V, Class 9—"Any newly carved works," the first prize, consisting of a gold medal, is carried off by Mr. Mark Logers, jun., for a clever piece of work in the form of a carved wood clock frame. The silver medal in the same class and division had to be duplicated, Mr. Charles Stephens taking one for a carved oak mirror frame, and the other going to Mr. T. Osmond for a case of carvings. The third prize in the same class fell to Mr. Charles Maytum for a very striking bit of original work in the form of an oak panel. The collection on the whole does not present much that is of special and striking individuality. There are few things of very distinguished merit, but the general average of the work is undoubtedly good, and there are many things of a very pleasing and interesting character.

ARCHITECTURE AND THE MANCHESTER GUARDIAN.

ONE cannot but admire the spirit which actuates the Manchester Guardian to defend its buildings and Architecture in face of the remarks made by the Pall Mall Gazette, in a recent review of a book upon that city, and the following quotation from that paper is interesting:—"It is in substance an attack upon Mr. Waterhouse, and we quite admit that there is too much of Mr. Waterhouse in Manchester. His work is wholly devoid of charm, and looks as if it were conceived, and almost as if it were constructed, in cast-iron rather than in stone. Still it is possible to exaggerate Mr. Waterhouse's demerits, and we think the Town Hall, and still more the Assize Courts, must be admitted to have a certain dignity, while even Liverpool, which, according to this amazing writer, has 'a monopoly of beautiful Architecture,' has gone to the same Architect for its university buildings. Dr. Ward not long ago spoke of Mr. Waterhouse as the Architect, not merely of the Owen's College but of the Victoria University, and unfortunately it is so. Then our writer goes on to admit—quite inconsistently—that Walters's Manchester and Salford Bank, in Mosley Street, is 'a more than fairly respectable design,' and even that it is possible to point with pride to the Exchange. He says something, but not enough, of the Cheetham Hospital, a little too much of the Cathedral, and nothing—wherein he shows his incompetence—of St. Ann's Church. Nor is the new Rylands Library thought worthy of mention, and indeed the writer appears to imagine that Mr. Champneys belongs to the same 'school of Architects' as Mr. Waterhouse. As to Liverpool, a man who will call it, from the Architectural point of view, 'picturesque, becoming, satisfactory' is, as Voltaire said of the prophet Habakkuk, 'capable de tout.' St. George's Hall is a really fine building, and the prime need of concentration has not been ignored, as it has been in Manchester, with the result that St. George's Square is a finer whole than anything we have to show. But the streets are in general no better, the approaches to the centre of the city are, if anything, worse, and there are no Liverpool parallels to the Cathedral, St. Ann's Church, or Cheetham Hospital. It is only in the upper residential portions of the city, where there is one fine boulevard, that we find a distinct superiority in Liverpool, and the way in which Liverpool has neglected its opportunities of opening out vistas to the river is as stupid as anything done or undone in Manchester—or even more so. The fact is that Manchester and Liverpool are in the same boat as regards their misuse of Architectural opportunities. Of the great English cities, Birmingham is the only one that has shown real intelligence in this matter." It is quite an unlooked for blessing to find a daily contemporary sufficiently interested in Architecture to take up the cudgels in its behalf, and we must perforce forgive the Pall Mall's strictures if only for having awakened the apathy of so mighty an organ as the Manchester Guardian.

PROFESSOR HERKOMER AND WELSH ART CULTURE.

IN an Address at the Inauguration of the Liverpool Welsh National Society, Professor Herkomer said no nation could have filled in an intellectual sense its entire mission until the graphic and the plastic Arts have been adequately represented, and it was with a desire to help Wales to attain this that he held out heart, hand, and experience at this juncture. At the National Eisteddfod held at Llandudno he could do nothing, but the National Eisteddfod of Newport for 1897 was entirely open to him, and he wished to acknowledge his appreciation of the way in which the local committee had met him by readily giving him all that he asked for. Having planned the Art prizes for that occasion he should get a real start. It would be the first step in a new era for Art in Wales, and, although it might be insignificant, it would not be a halting or a false one. He saw the certainty of ultimate success. It was no idle dream to imagine this new era growing until it became an all-absorbing power, making its influence felt far beyond the borders of the Principality. When Wales was once thoroughly aroused and eager for the Art fray it would do in 10 years what England did in 20. The history of Wales accounted amply for the Art faculty lying dormant. But dormant was not dead, and the faculty lay deep down in the nature of the present Welshman. He was full of music and rhythm, he loved the vast and the ideal, and was full of receptivity. The present Gorsedd of Wales sought to maintain an ancient custom only so far as was found compatible with the exigencies of modernism. The Gorsedd was wise in confining its rites and rituals to the broadest and simplest dogmas that had been handed down from the age of ages. The Gorsedd was an institution for serving the national interests by bringing together for a special purpose all classes of thinkers interested in the welfare of their country. Proceeding to speak of the picturesque side of the Gorsedd, Professor Herkomer explained the changes that he had made in the dress of the arch druid. Wales was never more loyal than it was to-day, but to attempt to deprive Wales of her national feeling would be to neutralize her identity. Let them stick to their identity, and let them stick to their Queen. What was required in regard to Art in Wales, was that rational Art training should be substituted for the present national Art training, and that there should be a further interest for the establishment of permanent Art galleries in various towns of the Principality. All teaching must be conducted on a personal basis, and the Art master must be the student's best friend. Under the system adopted at South Kensington, a young man or young woman might receive a certificate for this and the other subject, and yet be as far removed as possible from the Artistic, or even hope of attaining the Artistic. True decorative Art was rarer than the pictorial Art, and the teaching of the decorative was met with more obstacles than was the teaching of the pictorial. The unwieldy system of South Kensington was not of a kind likely to unearth intellectual talent. He wished to lay the strongest possible emphasis on the importance of personality in teaching. The pupils must be around a strong man who was a system in himself, and the applied Arts needed this method of personal teaching more than did the pictorial. Wales required the introduction of masters who would establish Art Schools on a more rational basis altogether, and a tremendous motive-power ought to be set in motion at once. Might he live to see great Art works, at least in the applied Arts, branded with the phrase "Made in Wales."

SOCIETY MEETINGS.

Architectural Association.—The annual conversazione of this Association, which was very largely attended, was held at 8 P.M., on 23rd inst., at the Church House, Dean's Yard, Westminster, by the kind permission of the Corporation of the House. The Architectural Association, which is now in its jubilee session, is the largest Architectural educational body in the world, and many of the designs of its pupils adorned the rooms. The guests, who numbered nearly 700, were received in the large hall by the President, Mr. Beresford Pite, and by the members of the Committee. In respectful deference to the wish of the late Archbishop of Canterbury, there was an exhibition of Ecclesiastical drawings and tapestries; furniture, fittings, and metal work were also on view. Amongst the carved woodwork was a very fine reredos in oak for Munaton Church Devonshire, designed and carved by Mr. G. H. Fellowes-Prynne, in the perpendicular style. There are three panels in the centre, upon which are painted incidents in Christ's life. Smaller panels on either side, filled with figures of the Apostles, were executed by Mr. E. A. Fellowes-Prynne. Another interesting exhibit was a number of choir stalls in teak wood, also in the perpendicular style, designed by Mr. W. D. Caröe, and carved by Mr. A. Robinson, for All Saints', Leek Wootton. The collection also included a very handsome carved reredos, with painted panels, exhibited by Messrs. Lonnie and Co.; altar cloths and frontals, by Mr. Alfred Stalman were much admired. One of the frontals, specially made for the Church of St. Martin-in the-Fields, is in richly embroidered damask and silk velvet in the Renaissance style. It is interesting to know that the work is the product of English hands. The exhibition of drawings by students of the Association did great credit to the training provided by the Association in Architecture and Design. Selections of music were given during the evening by the band of the Honourable Artillery Company. Amongst those present we noticed Messrs. W. D. Caröe, E. W. Mountford, Hampden W. Pratt, W. H. Seth-Smith, A. W. Earle and John Begg.

The Edinburgh Architectural Society.—At a meeting of this society, held on the 21st inst., Mr. W. N. Cumming A.R.I.B.A., read a paper upon "Perspective," which we are able to give in full in another column. The subject is treated in a broad and simple manner, avoiding all unnecessary complications. Mr. Alf. Greig was the critic and a discussion followed, in which several members took part, bringing out several practical hints and useful suggestions.—The hon. President's report on the first Design Competition, "A Riverside Lodge," was read, the first three being placed in the following order:—"Mullet Sable," "I ride thro'," and "Nadir."—On the 17th inst. the members visited Bruntsfield School, which has lately been completed and is considered to be the best in Edinburgh, being provided with gymnasium, swimming bath, and workshop, &c. The party were conducted over the building by the Architect, Mr. Wilson, and Messrs. Gray and Ferrier, Members of the School Board.

KEYSTONES.

WE hear that the Queen proposes to have a window placed in Crathie Church to the memory of Prince Henry of Battenberg.

A SITE has been secured at Knighton, Radnorshire, on which it is proposed to erect a new Baptist Church and Schools, at a cost of £2,000.

THE contract for the building of the Newcastle Electrical Exhibition has been secured by Messrs. Bruce and Still, of Liverpool.

As some workmen were removing a ceiling at Crediton Church, they found a leathern bag, containing 500 old silver coins, one of them dated 1470. The bag and its contents weighed 19¾ lbs.

THE Mersey Docks and Harbour Board has adopted a recommendation of the Warehouse Committee to carry out alterations at the Birkenhead Grain Warehouses, at an estimated cost of about £4,500.

NEW premises in City Road have been opened by Mr. T. J. Lipton. It is not generally known that Mr. Lipton keeps his own architect and solicitors on the premises, special apartments being set aside for them.

SIR WILLIAM HENRY WILLS, Bart., M.P., chairman of the Court of Governors, will lay the foundation stone of the new College Chapel at Mill Hill School, on the 31st inst. The Chapel will cost between £4,000 and £5,000.

THE members of the Edinburgh Architectural Society recently paid a visit to the electric lighting station in Dewar Place. Councillor Mackenzie, Convener of the Electric Lighting Committee, and Mr. Newington, the engineer, conducted the members over the building.

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AND

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The Duties of the Academy President.

It would be difficult to find a more heterogeneous body of men than the Royal Academy. Some are very rich, others are not; some are learned, others care no more about books than a sporting squire who lives the year round in the country. The Art of some is antiquated as a statute by Gibson; the Art of others is living and vital as a growing plant. The Royal Academy, in electing members, let it be said to their credit, take no account of social qualifications. In fact, they would seem to favour those outsiders who address their letters from humble rural districts or outlying suburbs. This is quite as it should be. A man should be chosen by his work, and the promise he shows of future performances. But when the moment arrives to elect a President, this seemly rule is no longer observed. He must be a great Artist, and a dozen other things besides—a scholar, a linguist, a social light, a host of a courtier, a Sandow in physique and endurance, an orator, and he must also produce a certain number of pictures each year, which, in the eyes of the public, are not derogatory to his high office. Small wonder, then, that since the lamented death of Sir John Millais there should have been persistent rumours that the Presidentship has been offered to this painter and that painter, and been refused. An Artist who likes his work better than most things in the world, shrinks from the demands imposed upon him by the acceptance of such a monstrously exacting appointment. The salary is not large, and a painter who still feels a call to devote the best of his time and strength to his Art, would grudge the time and energy that a President of the Royal Academy must give to his official and social duties. The ordinary man cannot paint and act as a sort of glorified and picturesque Lord Mayor at one and the same time. Nature is chary of her Lord Leightons. So we arrive at the conclusion that it is impossible to find a painter with the qualifications that the custom of our generation has ordained should be united in the person of the President of the Royal Academy. If it is necessary that the Presidentship should be given to the most venerable, one of the most capable, and the most honoured of English painters, then the mantle should fall on Mr. Watts' shoulders. But Mr. Watts has expressed a strong disinclination for the honour. Neither by temperament nor physique is he suited for the onerous duties, and if he could be induced to accept the post, it is probable that a sort of junior President would also be appointed, who could relieve him of the more ornamental of the duties. Such an arrangement could be but temporary. The Royal Academy would surely be wiser to face the difficulty, and to define the duties of the President on the supposition that the world will not produce again such an ideal head of their institution as Lord Leighton. The other Societies require no more of their Presidents than that they should be learned, eminent, and distinguished in their calling. It was a mere accident that Sir Joshua Reynolds and Lord Leighton were Admirable Crichtons. Let the duties of the President be frankly curtailed. He need be called upon to do but little more than to preside at the banquet, the *soirée*, and the Council meetings, and to conduct the Prince and Princess of Wales around the Exhibition-rooms in the early part of May. The world could even spare the bi-annual discourses. The social side might well be dropped altogether. What has painting to do with sociality? A dozen years under this new *régime*, and the President of the Royal Academy would be no more in request at dinner parties than the President of the Astronomical Society. The *rôle* of Art adviser and encourager of budding talent



OLD FOUNTAIN, LINLITHGOW PALACE. FROM A PHOTOGRAPH BY A. LINDSAY MILLER.

might also very well be deleted from the list of Presidential duties. It is only the weaklings who cry for advice and guidance while they are still in their teens. The general supervision of the Academy schools, wise words of advice on the occasion of the election of new members, and a constant effort to improve the standard of the annual exhibitions—these should be the chief aims of the new President. There is no reason why his duties in the Art world should be more onerous than those of Sir Henry Irving in theatrical circles. This curtailment of the showy duties of the office must be the new President's own doing, under the sanction of the Royal Academy, given at the time of his election. He must be strong enough, and suave enough, and diplomatic enough to make the change so gradually that it will hardly be perceptible. He will profit by the example of the recent history of the *Société Nationale des Beaux Arts*, where, a few years ago, M. Puvis de Chavannes was elected to the Presidential chair. His predecessor, Meissonier, was a man whose love of pomp and display was enormous, and as he was the first holder of the Presidentship of the Champ de Mars secessionists, it might have been thought that the precedent created by him would be followed by his successor. But M. Puvis de Chavannes is a man of rarer metal. He accepted the honour, he has performed the duties courteously, and with dignity, but he has not altered the course of his life. He remains one of the greatest of decorative Artists. He does not live in the shadow of the Presidentship of the *Société Nationale des Beaux Arts*, but the Society is illumined by the light of the genius of its President. Here is an example for the members of our Royal Academy to follow. The man should distinguish the office, not the office the man. If such a change were adopted, the difficulty of choosing a new President, which now appears to be almost insuperable, would become comparatively simple.

R. Norman Shaw, R.A.

The Daily Chronicle, which always takes the lead in all literary and Artistic things amongst the great London dailies (indeed it is probably the only morning paper which publishes intelligent and Artistic Art criticisms), deserves just now the especial gratitude not only of Architects in particular, but of all Artists generally, for its wise and weighty words in connection with the coming Presidential Election. We would advise our readers to look at the issue of Saturday last and read the articles on the above subject, concluding with the recommendation of Mr. Norman Shaw, as the new President. The writer of that article is so entirely in sympathy with our own views of the question, and puts the case so clearly and ably, that we should, but for consideration of space, produce his writing word for word. The concluding sentences, however, we feel bound to give:—"There yet remains another man, whose name we do not think has even been mentioned, who is a great Artist, who has had a vast influence on the work of his own time, who possesses the experience and knowledge to carry out the social and the official functions, and the leisure to attend to the manifold and unnecessary duties which have grown up around the office of President, and this man is Mr. Norman Shaw, the Architect. Surely, if the Academy be an *Academy of* ART, *and not of Oil Painting*, here is a solution. Some might raise the question heatedly as to whether Architecture is an Art or a Profession. None, however, will deny that Mr. Norman Shaw is a great Artist. And if the Academy wishes an Artist to preside over it, rather than the momentary leader of a little faction, Mr. Norman Shaw would be a proper selection." That the election of Mr. Shaw to the Presidency would come as a surprise to the outside world and to many Artists who are not Architects nobody will deny, but we venture to think that, if a man's past work is to be the measure of merit for that exalted position, or the abiding nature of it considered, and the claims of a dignified personality allowed, Mr. Shaw has no equal competitor amongst his colleagues. He is head and shoulders above them all, and easily the greatest Artist there. The world's greatest men have often passed through it comparatively unknown, and it is no argument against Mr. Shaw's fitness for the position to say that the average visitor to the Annual Exhibitions would be unacquainted with his name. It would doubtless astonish the majority of people if they were told that, in the opinion of those best able to judge, Mr. Shaw is not only one of the noblest Artists in British history, but incomparably the greatest Architect that England has produced since the time of Wren. However surprising and, perhaps, to some folks, unaccountable his election would seem, we are assured that no other course the Academy may take would, eventually, have such an enduring and complete justification. We are sure that all our readers are wholly with us in the wish that by the time these words are printed, his election will be an accomplished fact.

KEYSTONES.

SIR WALTER GILBEY, Bart., has accepted the chairmanship of the committee appointed to consider the practicability of establishing a light railway in North Essex. The estimated cost of the scheme is £26,500.

THE tender of Mr. Isaac Gould, Contractor, Hunslet, Leeds, for the erection of the new chronic blocks in connection with the Wakefield Asylum has been accepted (subject to the confirmation of the West Riding County Council). The new buildings will entail an expenditure of £80,000 or £90,000.

CONSIDERABLE damage has been caused by a fire at the Portman Chapel, which is at the corner of Adam Street and Baker Street. The gallery is a total wreck, and a portion of the roof has been destroyed. Much damage was also done to the pulpit and the lower part of the building by fire, heat, and water. There is little doubt that the fire was due to overheating of the heating apparatus.

SEVERN END Mansion, near Malvern, the residence of Sir Edmund Lechmere, has been entirely destroyed by fire. The valuable collections of manuscript and the family relics were all burnt, and also the furniture. A portion of the place was saved. The mansion had belonged to the Lechmeres since the Conquest.

AT Bristol, the Cotham Grove Wesleyan Chapel, which was erected 18 years ago, at a cost of £11,000, has been entirely destroyed by fire, although the school-room and class-rooms, constituting two blocks at the corner of the Chapel, were saved.

THE Villa Magni at San Ferenze, Shelley's home on the Gulf of Specia, is threatened with destruction to make room for a row of villas. Not long ago a monument to the Poet was placed on the shore at Viareggio, and the spirit which animated the subscribers, Italian as well as English, may, it is to be hoped, come to the rescue of what should be regarded as a sacred shrine.

THE Municipal Council of Ravenna, where Dante died, has again taken under consideration the proposal to erect a monumental tomb for the reception of the remains of the poet. The proposal to erect a tomb was made more than thirty years ago, but the amount then subscribed, about 18,000 lire, was insufficient. This sum is still in hand, and it is hoped that additional subscriptions will be obtained.

Owing to the enormous demand, and the impossibility of a reprint, the Publication is deferred until November 11th.

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THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

Perspective in Every-day Practice.

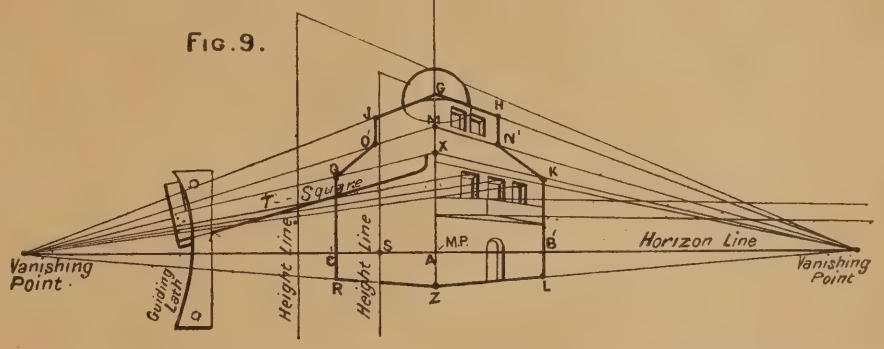
BY W. N. CUMMING, A.R.I.B.A.

No. I.—EXTERIORS.

(Concluded.)

HAVING mentioned these two practical methods of dealing with a distant vanishing point, I will now return to where we left our picture. We will suppose that we have got our material all in order, our horizon and measuring lines drawn, our vanishing points fixed, and "guiding lath" in position. It will be evident on glancing at the plan (Fig. 7), that the corner A of the building through which the picture plane passes, will be the actual height to scale of the building, because it touches the picture plane, but that the corner B will be reduced in proportion to its distance from the picture plane. In order to find this reduced height, take the distances AB′, AC′ mark off these on your horizon line (Fig. 9), through B′C′ draw indefinite perpendicular lines, then take the perpendicular distance AX, AZ on your elevation, and set these up on the line MP, through the points XZ draw lines to your right and left vanishing points, cutting the line B′C′ in the points KL, QR, and you have the reduced heights KL, QR, of the corners B′, C′, due to their distance from the picture plane, and you have an exact representation in perspective of the square part of the building ABC. I think I have now clearly shown all the details necessary for the representation of any square object or portion of a building when the picture plane is in direct contact with any portion of that square.

FIG. 9.



We now come to a part of the building which is not in direct contact with the picture plane, and matters become a little more complicated. I refer to the square marked MN, OP. We have to find the height of the corner M, this will be reduced in proportion to its distance from the picture plane, as in the case of the corner B. First take the distances AN′, AO′, and mark these on your horizon line, setting up perpendiculars through these points as before. In order to find the reduced height of these corners, we must have a height line upon which to mark the real height to scale, and this is found in the following manner:—Produce the line MN till it meets the picture plane in the point S, and take the distance AS, placing it upon the horizon line of the picture set up a perpendicular through the point S, and upon this the actual height to scale from the elevation. Then take the distances of the corners O′N′ from the picture plane, and set up these as before, through the points MG draw lines to right and left vanishing points, cutting lines O′N′ at points JH, and you have the reduced heights of these corners. This method applies to all faces of the building or object which do not come in direct contact with the picture plane. The heights of all openings, such as windows, &c., on the face AB of the building, will be set up on the line MP, and similarly all heights on the face MN will be set up on the line S, and each face which does not touch the picture plane at any point, will have its separate height line as in the case MN, which has S for its height line. Also, all faces of the building parallel to AB will vanish to the same point, that is to the right, and all faces parallel to AC will vanish to its respective point, *i.e.*, the left.

We have now to deal with faces of the building which are not parallel to these two. In this case we will take the face of the projection which is at an angle to the face AB, this will have a separate vanishing point, which will be found by drawing a line through the point of sight parallel to it, and meeting the picture plane in the point VP², if this is too distant we can take a fourth of the distance and proceed in the same manner as with VP′.

FIG. 7.

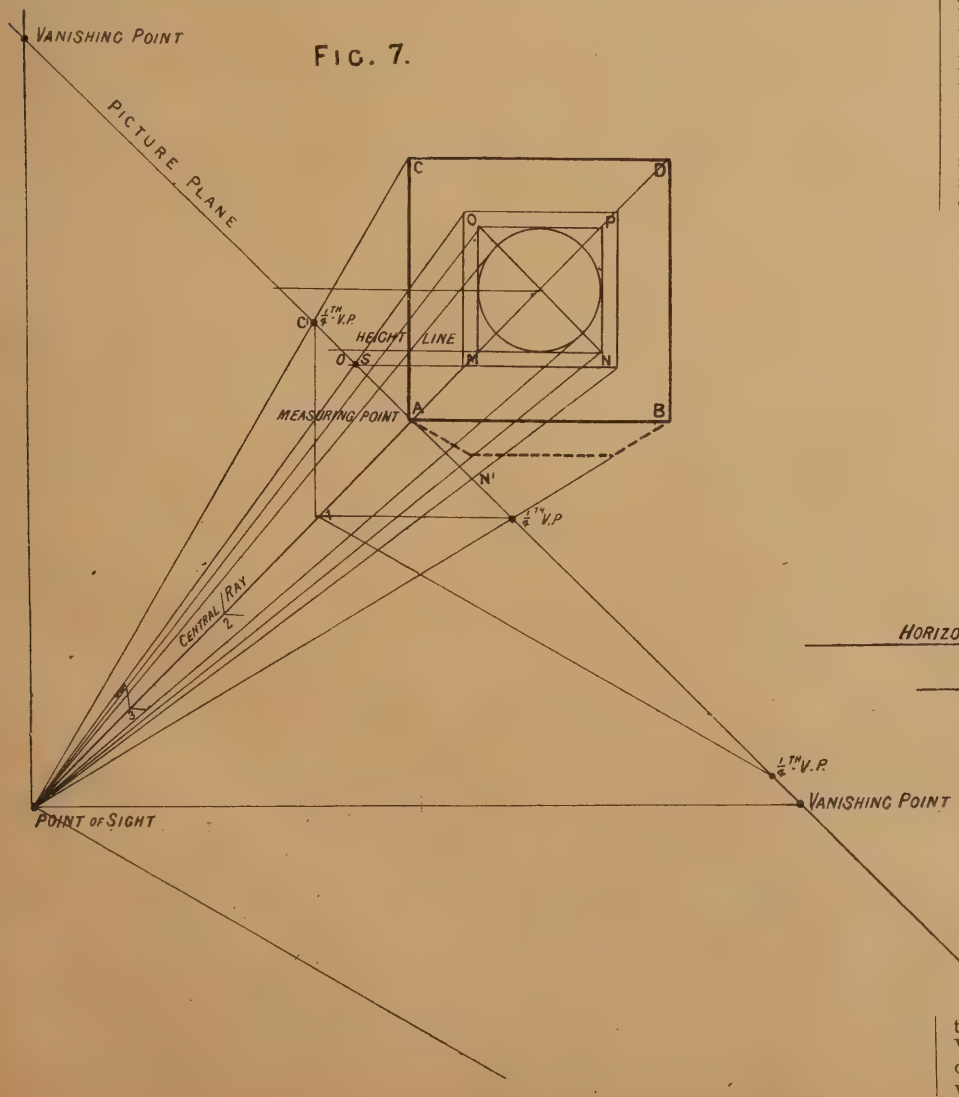
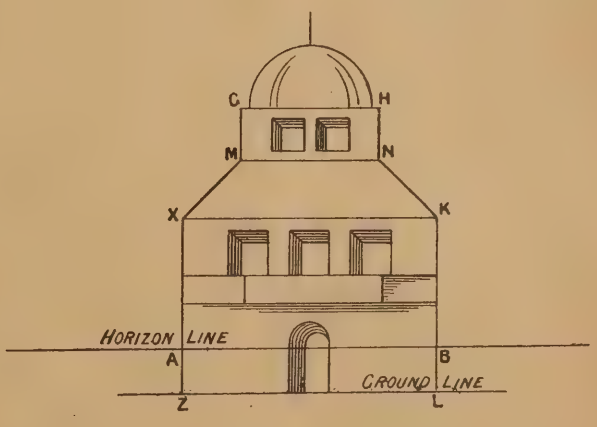


FIG. 8.

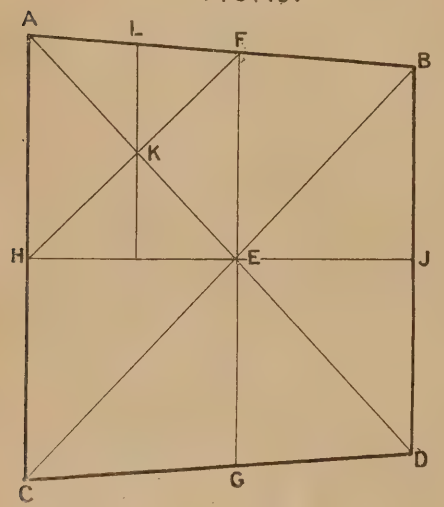


ELEVATION

We now come to the circular dome on the top of the building (*see* Fig. 8). Here we have no straight lines or faces to deal with, so cannot proceed in the same manner as with the lower part of the building. The method of putting a circle into perspective is not, however, so complicated as one would imagine at first sight. Some authorities on perspective, however, make this a very complicated matter by taking numerous points all round the circle, and finding the height for each by a separate height line for each point, but I think for all practical purposes such an elaborate method is unnecessary, and the simplest way is to enclose the circle with a square with sides parallel to the square sides of the building, and having found a height-line for this square, put it into perspective in the ordinary manner, draw diagonal lines through the corners of the square and through the point where the two diagonals cross, draw vanishing lines to the two vanishing points cutting the sides of the squares in four points. Having ascertained the extreme width of the circle on the picture plane, set this up from the measuring point on the picture, and draw perpendiculars till the two lines cut the diagonals of the square. Through these two points draw lines to your vanishing points, cutting the opposite diagonals.

You have now ascertained the height and position of eight points of the circle, it becomes

FIG. 10.



then an easy matter to draw a circle within the square, which shall pass through the eight points which you have marked, and this circle will be to all intents and purposes in perfect perspective. Having now the base of the dome in perspective, it only remains for you to complete the dome itself. This would be best done in the case of a dome of somewhat conical shape by dividing its height on the elevation into so many parts. Forming squares on the plan corresponding to the decreased diameter of the dome at this point, and put these several squares into perspective as you did with the square enclosing the base of the dome. Then draw circles lightly within the squares, and by joining the extremes of these circles you would develop a curved line, which would be an exact representation of the dome in perspective. But as we are dealing at present with a circular dome, it is evident that whatever way we look at it, it will always be in the form of a semicircle. We have therefore only to find the top at the centre, which we can easily do by means of a height-line drawn to the picture plane parallel to the square at the base of the dome, and then having three points given, viz., the two extremities of the base-circle, and the top, to describe a semicircle, which will be the dome in perspective.

The door and window openings are all that are left to complete the perspective of our building, and these will be arrived at as I have described, viz., their several heights will be put on the height-lines of the several faces of the building which they pierce, and their position ascertained in the usual manner. These comprise the principal points necessary to put a simple building in perspective, and I will now endeavour to explain how, by applying a few simple rules you will be able to put any object in perspective.

First, then, it is not necessary to invariably apply to the plan for distances, divisions, centres, &c., as these may be ascertained by the following method, saving much time and trouble. We will suppose it is necessary to find the centre line of the side of a cube. I have, in Fig. 10, a square in perspective marked ABCD; it is required to find the centre of the square in perspective. Join the diagonals AD, BC, and through the point where the diagonals cross, draw a perpendicular line cutting the sides AB, CD in the points F, G. These then will be the perspective centres of the lines AB, CD. Now through E draw a line to the vanishing point of the square, cutting the two sides AC, BD in the points H, I: these will be the centres of the lines AC, BD. It is possible to further divide the square ABCD into any number of equal parts in perspective. Join FH, and through point K draw a perpendicular line as before, cutting AB in the point L, and you have another division of the line AB. Proceed by squares, diagonals, and perpendicular and vanishing lines in the same manner, and you will be able to divide A, B, or any side of the square, into any number of points that you may desire.

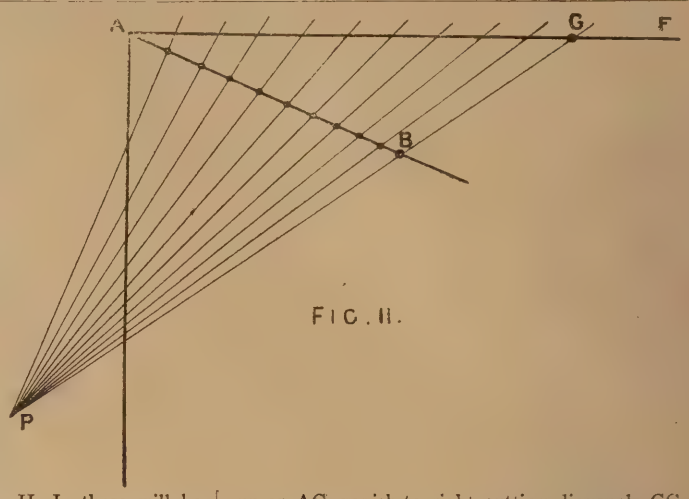


FIG. 11.

There is another method of dividing a line into a number of equal parts, which I have found extremely useful. Suppose it is required that the line AB (Fig. 11), be divided into so many parts, say ten. Through A draw the straight line AF at right angles to AC, and produce it indefinitely, then take any point P outside the line AC, and from P through B draw the line PB cutting AF in G, then divide the distance AG into ten equal parts, and through each of the parts draw lines vanishing to point P, then the line AB will be divided into ten equal parts, in perspective, by the vanishing lines.

Assuming that we require to put a row of arches or openings, in perspective, this may be done in the following manner:—Suppose Fig. 12 to be a row of arches or an arcade. Having found your horizon, vanishing points, &c., in the usual manner, take the distance AB from your plan and set up perpendiculars from these points, then take the height to the top of the arch from the horizon and mark this on the perpendicular line AC and vanish to right, cutting DB in point D, vanish A in same manner. Divide line AC into two parts cutting BD in point G, draw a diagonal from C through G cutting line AB in point A, and through H draw a perpendicular line cutting CD, FG in points K, L, and proceed as before, drawing diagonals through DK cutting AB in point M., and so on; this will give you the division of the arches or openings. To find the curve of the arch head, draw diagonals on the elevation CG, FD cutting the arch head in the points 1, 2, and draw similar diagonals in the perspective view, then take the height of the points 1, 2, and set up on AC, vanish to right cutting diagonals CG, FD in points 1, 2 through point 3, where the diagonals cross, set up a line cutting CD in point A, and you have the apex of the arch. You have now three points A, 1, F, and it is an easy matter to describe the segment of a circle through these three points, and you have one side of the arch complete; proceed with the other side in the same manner, and also with each of the other divisions, and you have the row of arches required.

There are many other points which occur, especially in interior perspective, which I should like to bring before your notice, so these will form the subject of a separate article. I think I have given you sufficient ground to go upon to enable you to set an exterior perspective of a simple building. I shall, at a future time, give you, in detail, all that is necessary to put into perspective the most elaborate subjects. Having mastered the geometric rules of perspective, you have still before you the most difficult part of the work of the perspective draughtsman, viz., the artistic treatment of the subject. I would suggest that you begin by making a careful study of the work of Messrs. Mallows, McGibbon, Raffles Davison, Horsley, and other well-known perspective experts, and that you do not, as many do, blindly copy the *technique* of their work, because each of these men has acquired his peculiar characteristic style through long and tedious labour, and what in them is a charming touch of genius, would become in you a mere trick of the pen or pencil, which, at best, would be a poor reproduction of the original. Strive, therefore, by study of good masters, so to develop your hand and eye that you form an original style of your own, and avoid, above all things, the same manner of draughtsmanship to every building you produce in perspective. Each subject requires its special treatment, and this will only come by study and practice.

FIG. 12.

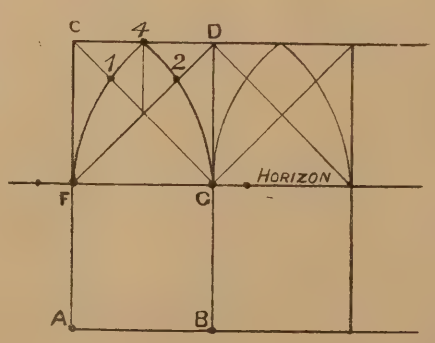
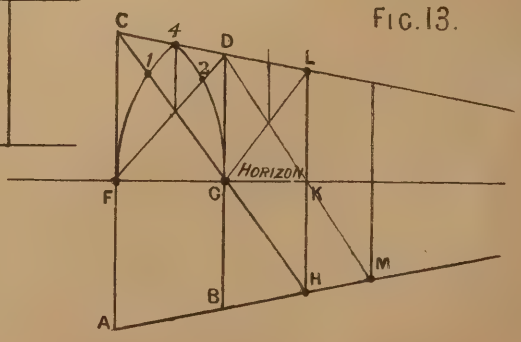


FIG. 13.



KENT AND SUSSEX COTTAGES AND ROOFS.

Specially illustrated by FRANK LISHMAN.

IN designing for the country, one of the most difficult points to succeed in is to make the building fit the site—to make it "sit" well. And whether it be for the squire's mansion or the labourer's cottage, the village inn or the village Church, no more suggestive or instructive district, to help us in this particular, can be found than the stretch of country lying more or less between Maidstone, in Kent, and East Grinstead, in Sussex.

It is true that a characteristic Kent or Sussex cottage would be quite out of place in a bleak Northumberland pit-village, and equally so on the slopes of the Hambleton Hills; but a study of the first ought not to unfit us for a proper conception of the requirements of the others.

The roadside cottage with its oast-house, to be met with hereabouts, forms as essential a feature in the landscape as the orchard or the hop-field. They verily appear to have grown with everything around them. It is almost impossible to separate the one from the other in our mind's eye. What do the rounded masses of foliage on that elm tree not owe to the tall, straight chimney-stack, which seems almost to bury itself in the wealth of foliage hard by? And what does that straight vertical timber framing not owe to the fact that a vine of many summers wriggles across it and up it? We are almost inclined to suspect that the builder of old must have been in league with Nature herself.



AT PLAXTOL, KENT.

We may not be able to make trees grow exactly as we would wish, and so anticipate Nature as we build, but we may at least respect her, as we may chance to find her in possession ere ever the 100-foot chain has traversed the site.

We cannot respect Nature unless we have that sympathy and love for her which only comes by intimate acquaintance with her. To wander along rough lanes (where the bicycle cannot go), to plunge through a hop-field and across a broad meadow (a foot-path may invariably be found), into an orchard or a garden of flowers, where many bees hum, to study broadly and narrowly, and to sketch and measure what there is to see, is a pleasure and an experience which the Architect would do well to avail himself of more than is his wont. As we cross that meadow, with perhaps nothing but a common-place roof and chimney to be seen of the cottage over the hedge, and we find that common-place roof and chimney in the blueness of the distance and the smoke from the latter combined, exercising quite an irresistible charm for us—a charm which is not dispelled on our nearer approach, but rather increased, and still increases as our eye discovers, and pencil draws, the many subtleties of design and workmanship upon which its success so much depends.

There is doubtless a charm and fascination in the natural colouring of the materials employed: the browns, reds, purples, and yellows of the bricks and tiles; the silver grey of the oak framing, weather-boarding, and shingling; with the plaster—either rough or smooth—which seems to contain, in the most delicate hues, all the tints to be observed in the more permanent materials. The smallness of the bricks (at Hartfield four courses measure 11 inches), with the wide mortar joints used in setting them, also assist the scale, and add to the texture of, and interest in, the wall surfaces; this being emphasized by contrast with the comparatively wide-coursed and smooth appearance of the vertical tiling, where it is employed.

It is a severe test for a building owning great charm of colour and material to proceed to sketch it in plain pencil—no colour-box, perhaps no shading; it is then that we find wherein its success lies—this will usually be found to be in the lines of the roof and in the position of the chimney or chimneys. If the position of the chimney were only more considered in the designing of our present-day houses, we should have more pleasure in beholding the result, and probably enjoy a greater amount of comfort in occupying them. To design the roof is to design the house, for the roof cannot be considered without



AT PENSHURST, KENT.

the chimneys, nor the chimneys without the fireplaces, and what house can be called a home unless the fireside be inviting and free from draughts and other inconveniences of bad planning and construction.

Although the roof lines and the chimneys are the features of greatest interest in the Kent and Sussex buildings, yet there are many valuable lessons to be obtained from a notice of the wall surfaces, windows, and timber framing. It is nevertheless noticeable, that as the elaboration of the design of the timber framing and plaster work increases, so does the design of the roof, and, therefore, the real expression of the building loses in interest. A glance at some of the accompanying sketches will show this. For instance, the three timber gables of the house near Penshurst (situated two miles south of Penshurst by the road to Speldhurst) are all well designed and quite characteristic of Kentish work, but they may be studied as three gables, and three gables only; any one or two of them might be removed without detracting from the merit of the remaining one whit; the cut-up roofs and the lost-looking chimneys have to answer for this. The U-shaped plan and the sturdy brick walls up to the first-floor level, however, are worthy of a better sky line.

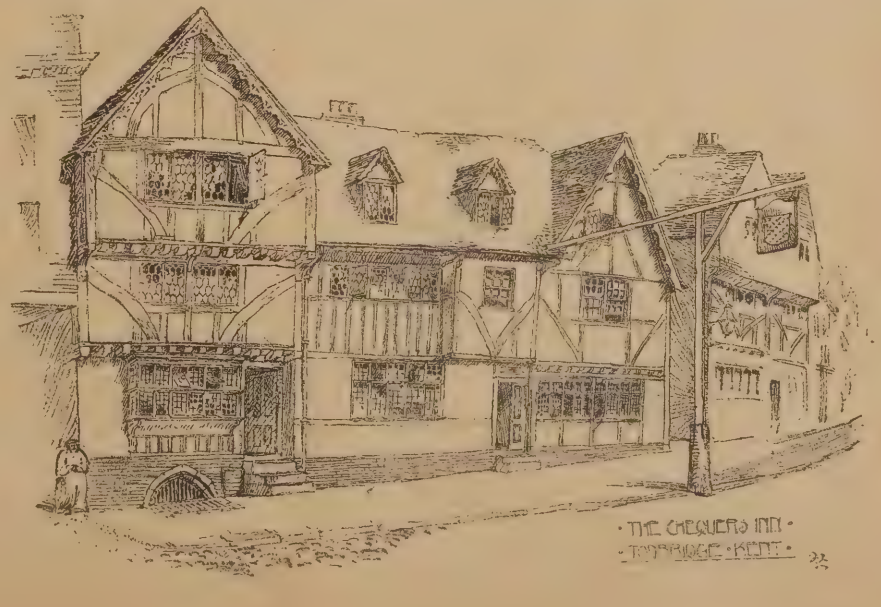
What a very different impression one receives from a close study—for small and simple as they are, they are worthy of the closest attention—of such cottages as the three near Plaxtol, Hadlow, and Tonbridge respectively. Their lines are so subtle that to analyse them is not easy. In the first place, the straight and plain chimney rising from the ground (if we blind our eyes to the recent addition of a wooden shed) is probably the making of it, and owing to the vertical tile hanging being only flush with the back of the chimney, instead of the chimney being partially housed into the gable end, the sturdiness of the shaft is yet the more emphasized. The manner in which the tiling of the lower roof is twisted to meet the tiled slope of the chimney, and also to soften the junction with the tile hanging of the gable end, is as skilful a piece of the tiler's art as it is rare.

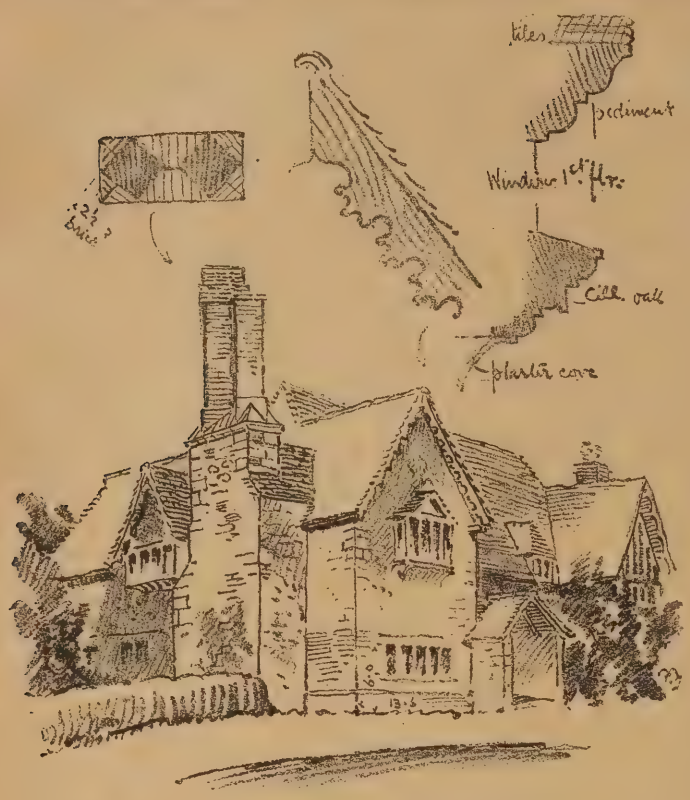
The cottage situated nearer Hadlow shows a good treatment of its vertical surfaces with weather boarding, timber framing, and plain plaster surfaces; but the manner in which the square plan at the ground level is changed in the roof to an L-shape, with the chimney, apparently to the eye, still in the centre but in reality far out of it, is very suggestive. The somewhat larger cottage passed as we near Tonbridge, has a remarkably piquant appearance, with its irregularly placed windows in its tile hung gable end, and the slight hipping of the apex. The plan of the main chimney and its position on the side instead of in the centre of the ridge, ensures interest when viewed from either front or back, besides preserving the dignity of the whole. The side to the road has a range of three gabled dormers to light the attic floor.

In Tonbridge itself, the "Checquers Inn" is a good example of timber framing in its larger gable, but the other gable is not worthy of its position; nor is the grouping good, whether viewed from either up or down the street, owing to the absence of any chimney stack to give point to the roof line. The "Checquers" has not been improved in recent times by the insertion of unsuitable casements and lead glazing to the



ground floor windows; the insertion of some sash windows in the first floor at an earlier time, has done less harm to the appearance, as a whole, than is caused by these casements. For characteristic Kentish timber framing and good roofing combined, the Post Office, in the little old-world village of Chiddingstone, is as perfect an example as may be seen anywhere in the district. The treatment of the bay windows, with their overhanging gables, varied in each, is very successful, the whole looking in perfect repose in spite of so much timber and plaster; this latter quality is owing not a little, perhaps, to the substantial stone base course up to the level of the ground





IN IGHTHAM, KENT: BY F. LISHMAN.

floor. Absorbing as is the detail of the various brackets, pendants, and barge boards, it may be doubted whether the manner in which the roof of the largest gable is treated, in combination with the partially hipped end to the long main roof, does not give more individuality to the whole than all these combined.

Immediately opposite this old timber and plaster house stands the Church, its fine western tower of stone being as valuable a lesson in simplicity as the house is in variety of treatment, a simplicity which is the more apparent by its close proximity to the latter. The sturdy and broad effect gained by the way in which the stair turret is placed on the south-east angle is particularly worthy of study, as is also the method adopted at the top of the turret, by which the crocqueted pinnacle is allowed to survive, instead of the turret being carried up above the level of the tower battlements, and entirely displacing the angle pinnacle as may sometimes be seen.

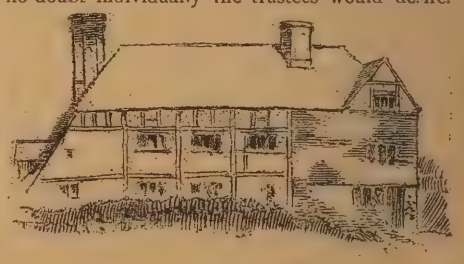
For extreme simplicity, quiet dignity, breadth of effect and perfect balance of parts, it is difficult to conceive a more satisfactory design for an English homestead than the farmhouse which may be seen lying back from the roadside about a mile north of Speldhurst. There are few Churches which can boast of such a fine situation, and which add more to the interest of the landscape than the Church at Speldhurst, as seen across the valley from Bidborough on a misty August morning, its square tower rising above the wealth of trees by which it is embowered; one only regrets that the music of its merry peal of bells may not travel so far; however, as the bells will not come to us we resolve to go to the bells. At close quarters the Church is disappointing, the hand of the modern restorer being too much in evidence. Opposite the Chuch is the Old Manor House, now the St. George and the Dragon Inn, which although possessing nothing worthy of note externally, yet contains a fine fourteenth-century oak roof; a floor has since been inserted at about the level of the wall plate, so the roof may be now studied at close quarters, the effect, therefore, can scarcely be properly judged. There may also be seen in the village some good examples of herring-bone and other patterns in brickwork in the walls of some cottages. From Speldhurst Church, with its stone tower, across the country to that at Cowden, where not a stone is used in either tower or spire (A.D. 1320), is but some four miles, yet the contrast is great. Its vigour and independence impart to it a character and individuality which its mere picturesqueness would not alone produce. Oak is the making of it, inside and out—thick and strong, as the stone walls are at the western end of the nave, the British oak asserts its superiority over them; the tower being carried from the floor level (with the exception of brick piers, 18 in. square, and about 4 ft. high) on massive oak balks, beams, struts and braces entirely free from the walls, some of the timbers measuring as much as 18 or 20 in. square, the tenons to the curved braces of the lowest staging being 6 ft. in length. As an example of carpentry, time spent in measuring it would be amply rewarded. Externally, the whole of the tower and spire is covered with shingles, as is also the western part of nave roof. The main part of nave roof has a tile covering, and is of a slightly flatter pitch than that of the shingle roof. The manner in which the shingling is twisted to effect this increase of pitch, shews great resource in the art of dealing with the material. Compared with the usual size of openings in the belfry steps of stone towers, the louvres in this case appear small and mean: but for a belfry of this description louvres are necessary only for ventilation. To hear the bells rung in a tower like this, is as necessary for a just appreciation of its purpose, and the material used in its construction, as it is in the due appreciation of a fine Cathedral, such as Durham, to hear the full organ peal forth through its aisles, and linger in recesses of its vaulting. Picturesque as many of the towers and spires, such as Eynesford, Hever, West Peckham, or Edenbridge, may be, a light shingle spire on a heavy and strong stone or flint tower, never seems quite satisfactory. The change of material is too sudden and harsh; this is the more apparent at Hever, where the shingle spire starts immediately over and flush with a boldly moulded stone oversail, which looks as if it were almost intended to carry a parapet. Lead would be a more suitable roofing material for such a tower—lead looking all its weight, whereas shingles have a way of looking lighter than they really are.

(*To be continued.*)

THE position of assistant surveyor to the Strand Board of Works is vacant. The salary offered is £120 per annum. Applications must be sent to the Clerk, at 5, Tavistock Street, not later than 4 o'clock on Wednesday, 11th prox.

THE POSTMEN'S PARK.

ALLITERATIVE it certainly is, but the title of The Postmen's Park, applied by the Times to the Churchyard garden of St. Botolph, Aldersgate, is not appropriate from any other point of view. It is misleading, as tending to give rise to the impression that the garden is chiefly used by the postal officials. As a matter of fact, such constitute an unimportant minority of the visitors; indeed, only rarely a postman is seen therein. The title of the article is, however, but a minor point, compared with the main object in view, which is the ventilation of the grievance the authorities have against the charity trustees. On its north side the churchyard is separated from Little Britain by a small piece of land which was at one time thrown into the garden, but which is now fenced off, and is the scene of inchoate building operations. Amongst the objects prescribed by the City Parochial Charities Act, is the preservation of open spaces, and it might be expected, therefore, that the trustees would find little difficulty in enlarging the garden by the addition of the fragment of land in question. They work, however, within limits laid down by the Charity Commission, and it is said that there are technical difficulties in the way of an arrangement which no doubt individually the trustees would desire.



AT SPELDHURST, KENT.

As a building site, the land, small as it is, is of substantial value, and it is said that the trustees have no right to sacrifice the revenue which they might gain in perpetuity from a building lease, although they are distinctly empowered to make grants from time to time out of their annual income, in aid of open spaces. It will be a pity if some way cannot be found of getting over any such difficulty, for a row of houses on the fringe of land between the existing garden and Little Britain, will be a serious eyesore. Backing on to the garden, they will substitute for an open thoroughfare, letting in light and air, grimy walls and offices, and all the least attractive features of business premises. A London garden cannot have too many frontages. Put away amongst houses, it becomes airless and gloomy. Opening on to busy thoroughfares, it gains brightness and light, while in turn it refreshes not only those who enter upon its walks, but those who, passing along the street outside, see its trees and grass.



FROM A SKETCH BY F. LISHMAN.

In the present case, moreover, if the Postmen's Park is extended to Little Britain, it will border on two sides the Church of St. Botolph, Aldersgate, which will form an interesting and appropriate feature of the garden. In the very heart of the City, every inch of open ground is invaluable, and the expression of the hope that some means may be found of averting the threatened building, and preserving and improving the Postmen's Park. Is it too late to induce the trustees to give way? It appears by a letter from the vicar and churchwardens that they are willing to do so to some extent. The price asked for the ground is £12,000, but it is hoped £10,000 will be accepted; and as the post-office authorities are willing to contribute £5,000 towards a purchase fund, there is only a further sum of £5,000 required to secure the threatened area as an open space. Donations towards that amount can be paid to the vicar or churchwardens, or to the Aldersgate Street branch of the National Provincial Bank of England.

KEYSTONES.

SOME of the pavement in use on the streets of Vienna is composed of granulated cork, mixed with asphalte and other cohesive substances. It is compressed into blocks of convenient size. Its advantages are cleanliness, durability, and economy.

GREAT preparations are being made for a Scandinavian Art and Industrial Exhibition, to be opened at Stockholm, on May 15, 1897, in connection with the twenty-fifth anniversary of King Oscar's reign. The object is to represent the artistic and industrial products of the Scandinavian countries and of Russia.

THE reconstruction of Carfax Tower, Oxford, appears to be arousing a contention as heated as that which blazed around St. Mary's, further down the High. The Corporation have for the present declined to have anything to do with Mr. Hare's reconstruction plan, which substitutes a picturesque building for the present stucco remnant.

AT Sydney, the Australian Museum has received a grant of £6,000 from the New South Wales Government for building purposes. It will be needed, for a slight accident to the plaster has revealed the fact that the woodwork of the entire roof over the central part of the building has been destroyed by white ants. The building has been temporarily supported, in order to make it safe, for the destruction has been complete, and it is a wonder that the roof did not collapse.

SEVERAL years ago, whilst ferreting among some old curiosity shops in Norwich, Mr. Rider Haggard espied what he at once recognised as a life-size bust of Nelson cut in oak. After completing the purchase he discovered upon the back of it the words, "Nelson. Wood of the Victory, 1812." It may be added that at Bradenham Hall, the seat of the Haggard family for many years, there is the mahogany washstand which stood in Nelson's cabin on board the "Victory."

MR. HARRISON, the Sheffield steeplejack, who was commissioned by the Office of Works to inspect thoroughly the Nelson Column, after the stripping off of the decorations, with a view to ascertaining what, if any, repairs are necessary, reports that, although the monument is perfectly safe and stable, some minor repairs are desirable. Some of the interstices in the masonry require pointing, and it is expected that the Office of Works will order the necessary repairs, which will be carried out by means of swings suspended from the head of the column.

ON a hill in Mill Valley, California, the wonderful force of the roots of growing trees is demonstrated, a laurel having split a huge boulder into three pieces. An examination of the tree and its surroundings shows that the boulder is one of the largest stones in the vicinity, and cannot weigh less than 500 tons. The location of the tree is almost exactly in the middle of the stone and about five feet from the end of the split. This rift in the rock is about 15 feet long, and at one end is only a few inches wide. At the end where the tree is it is at least three feet. To prove that it was the tree that caused the split there is a crack in one of the halves of the boulder showing that the force of the growing roots was so much that it cracked the rock where it could not move it.

THE ELECTION OF INSTITUTE FELLOWS.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

IN his opening address on Oct. 22rd, as President of this Association, Mr. W. Henman enlarged upon a subject touched upon by Mr. Penrose last year, viz., the falling off in the class of Fellows of the Institute, and gave his ideas as to how this might be remedied and the Institute strengthened, while, at the same time, the provincial Societies might be placed on a sounder footing. The Council of the Institute took the matter up, and appointed what has been termed "The Fellows' Special Committee," upon which, together with a number of metropolitan Architects, the Presidents of allied Societies, then on the Council, were requested to act, and several meetings were held. At first the inclination was to make as little change as possible in the *régime* of the Institute, and a draft report was drawn up, which, while affecting little in the way of useful reform, contained suggestions which, if adopted, would in all probability have stopped for a time further action; it was at the next meeting withdrawn, and the session ended, after which the committee was reappointed, and strengthened by the addition of all the Presidents of allied Societies, and an interim report of a colourless nature was laid before the Institute, which, after a desultory discussion, was adopted and circulated, together with a statement that during the recess the views of the allied Societies would be ascertained, after which a further report would be submitted. Continuing, Mr. Henman said: "It is to be regretted that those opinions were not arrived at and formulated at an earlier date; but the holiday time was unsuitable for the consideration of so important a matter, and it is more than probable that the same reason prevented many of the allied Societies taking up a more decided attitude than they have in respect thereof. It is not, however, too late to hope that the business-like views of your Council may yet form a rallying point around which the majority of the allied Societies will arrive at an understanding, and by united action force a full discussion of the subject. I am not at liberty to detail the views expressed by other allied Societies at present. Of the fourteen allied Societies, thirteen have through their Councils expressed opinions upon the 'interim report.' Two only adopt, without further suggestion, the recommendations thereof. Eight desire that the subscriptions of provincial members should be materially reduced, or, what is equal thereto, that a larger percentage should be contributed to the provincial Societies. Five desire that the library and rooms of the Institute be made more available for use by provincial members. One other Society adopts, with slight modifications, the opinions formulated by your Council, and at least ten of the Societies in various ways, but somewhat indefinitely, appear to realise that some such reform of the Institute is desirable in the interest of the profession at large, and particularly in a manner favourable to provincial members. Anxious as I am that decided action should take place, I am still more concerned that the agitation should not

DEVELOP ANTAGONISTIC FEELING

between country and town; that, in my opinion, would be contrary to the interests of the Institute as well as of the provincial Societies, and conse-



FROM A SKETCH BY F. LISHMAN.

quently of the profession generally. One reason I have for particularly demanding your attention at the present time is to endeavour to make clear to you, and to those concerned, that the action of your Council is particularly directed towards the consolidation of the Institute and the strengthening of all the provincial Societies. With regard to the opinions formulated by your Council the recommendations of the interim report of the Election of Fellows Committee are considered altogether inadequate, if it is desired that the Institute should become the actual representative body of the British Architectural profession throughout the country. Now, the recommendations of this interim report run thus:—'A.—That the proportion of one vote against, to two in favour, exclude from election, in place of one against, to four in favour, as at present. B.—That the form of voting papers be altered, so that the names on the list voted against have to be crossed out. C.—That attention be called to the requirements of the Council as to the drawings, &c., to accompany an application for Fellowship. D.—That a circular be issued to all Associates who have been over ten years in that class, pointing out that in the interests of the Institute Associates who are eligible should come forward for election as Fellows.' Is it at all likely that such mere alterations of the voting papers and method of voting will encourage a single additional practising Architect to become a Fellow? Or will it add, in any way, to the honour conferred upon those who come forward for election, because the voting in their favour might be just over two to one? Or would any man feel more dishonoured by being blackballed by one in two than he would be by one in four? Or is it simply a question whether, by a stroke of the pen given, those who are undesirable will be rejected, and, if withheld, those who are worthy will be elected. Your Council have had the courage to place on record that such recommendations are 'altogether inadequate to meet the requirements of the profession throughout the country.' At present the allied Societies, all constituted for very similar purposes,

GO THEIR SEPARATE WAYS,

having, with few exceptions, the least possible influence locally, and practically no support or influence throughout their respective districts, and no opportunities whatever for collective action, and yet some of them, so far, I regret to say, fear to attach themselves to the greater body, and unite together for mutual support and influence. Our opinion is that it is quite possible to secure close union throughout the country, and yet that each Society may possess perfect freedom of action locally, freedom fuller than any at present enjoyed, because strengthened by having the whole body of the Institute and all 'Branches' at its back. Should it be determined to form 'Branches' of the Institute, the identity of no existing provincial Society must be lost, its title in all cases to be retained with the addition of the words 'a Branch of the Royal Institute of British Architects.' As the planets revolve around the sun, influenced thereby and influencing one another, each with its distinctive name and functions, yet all members of one solar system, let each 'Branch' retain its distinctive title and exercise its duties, proud of its connection with the parent stem and all its ramifications. That each 'Branch' should be managed by a President, who must be a Fellow of the Institute, two Vice-Presidents (either Fellows or Associates), a suitable number of members of Council, and other officials, at least one-half of whom must be Fellows or Associates of the Institute, the remainder being ordinary members of the local Society. It is in the governing bodies of the several 'Branches' that intimate connexion with the Institute and with one another must be sought, and, therefore, it is urged that there must be therein at least a predominating number of Fellows and Associates of the Institute. Some may question why all should not be such. The answer is that at least for some time to come it would be unwise to shut out those who have not so far seen fit to join the Institute, or those who have not yet advanced sufficiently to pass the examination, from taking part in the management of local Societies, because such Societies have been, and are now, principally supported by those classes. Yet I sincerely hope and believe that if 'Branches' of the Institute be formed on a broad and liberal basis, there will be far greater interest taken by senior members of the profession in the doings of local Societies than there is at present. Upon the subject of reduction of subscription, there is a very strong feeling among provincial members, and inasmuch as there is no bye-law of the Institute regulating the contribution which may be made to 'Branches,' whereas, under Bye-law No. 81, that to allied Societies is limited to one-fourth of the subscription of those members who are also members of such Societies, it is evident that without the revision of such bye-law no further contribution can be expected from the Institute to the allied Societies, yet by the formation of 'Branches' there is an opportunity for arranging an increase of the contribution made, which is much needed for local purposes. What we now have to deplore is not only the callousnes and even the

HOSTILITY OF PROVINCIAL ARCHITECTS

to the claims of the Institute, but also that they neither encourage the local Societies by their presence nor by subscribing thereto. If by liberal measures of reform it will be considered, as I trust it soon would be, a voluntary necessity for every practising Architect of repute, as well as of every advanced Assistant, to become a member of the Institute, what an accession of strength would accrue not only to the Institute but also to all 'Branches' constituted on the lines suggested. Mr. Bradley, in his recent address as President of the Liverpool Architectural Society, touched upon the financial connexion of the allied Societies with the Institute. Presuming that his figures are approximately correct, there is a return of about £200 from the subscriptions of members of the Institute to the allied Societies, or an average of little more than £14 to each. There are, however, at the present time some 240 Fellows and 364 Associates in the provinces, whose total subscriptions amount to £1,772, consequently, if all such members be connected with the several 'Branches,' as suggested, the contributions from the Institution would, in the proportion proposed, amount to a total of £886, or an average of about £64 to each 'Branch,' if formed in the fourteen districts as at present mapped out. Naturally, some will ask how it would be possible for the Institute to bear such a financial strain, and no one with a knowledge of its present resources and necessary expenditure would expect it could. It is, however, not too much to hope that there would be no difficulty in quickly doubling the number of provincial members, and that would result in securing an income, greater than at present received, even

AFTER DOUBLING THE CONTRIBUTION TO PROVINCIAL SOCIETIES.

What would such an accession of strength mean to the 'Branches?' Why, instead of a paltry £200, there would not only be £886, but about £1,750 to divide among the fourteen Societies in proportion to their strength, and, in addition, the subscriptions of ordinary members. Consider what advantages may result from such an accession to their funds, for instead of, as now, dragging on from year to year in an impecunious state, unable to undertake any useful functions, they would have money at their command which, if judiciously employed, might add greatly to their influence and powers for good. It is possible I may be over-sanguine in this matter, but of this I feel convinced that now is the time for action. If the Institute is well-advised, it will make a forward movement in the hope of strengthening itself as well as of giving greater vitality to the provincial Societies, otherwise it is to be feared that the time is not far distant when each will shift for itself and the national character of the Institute will be lost. It is not likely that unreasonable opposition will again be offered to the

ELECTION OF QUALIFIED MEN

of repute, and therefore the existing method of election may in its essentials be retained for a time, but the intention of the last clause, respecting the recommendation of Architects residing in the district, by the Council of any 'Branch,' is intended to be effective, and that such recommendations should only take place after careful inquiry and consideration by the local body, and, when made, should be accepted by the Institute Council without question, and the candidates put forward for election at once in the ordinary way. The reason for this must be obvious, because the Architectural status of such candidates must be better known, or more easily ascertained, by the local than by the general Council; but to prevent any personal or local prejudice acting unjustly towards a candidate, it may be necessary to provide for some form of appeal to the general Council. The opinions of your Council and the views of the allied Societies will, on the 3rd November next, be taken into consideration by the Committee appointed—a large and representative body, consisting of no less than 39 members, of whom 17 are from the provinces. What may be the result of their deliberations it is impossible to say; but from the large correspondence I have had on the subject, and by attendance at the Council and Committee meetings, I have reason to hope that the necessity for some decided action is making itself known to the minds of many metropolitan as well as to most provincial Architects. Now for the practical reasons why our Association should press this matter forward. We are, I hope, all proud of our connexion with Birmingham, and to hear it designated the Midland Metropolis. In its trade, its manufacture, its commerce, and to some extent in its Art matters, it may fairly claim such a distinction. But are we satisfied with its Architectural position, either as regards its buildings or the status of the profession? Last year I mentioned that out of the 41 senior members of this Association only four are Fellows of the Institute, and yet there are no less than 120 practising Architects whose names appear in the Birmingham Directory, while our district comprises the five counties of Warwickshire, Worcestershire, Staffordshire, Shropshire, and Herefordshire. Is it likely that such a minority can command the influence and respect which ought to be accorded to an Association covering so large and important an area? How slight are its opportunities, as at present constituted, for obtaining suitable support and recognition or power to cope with the work it ought to undertake. In London the strength of the Institute enables it not only to make its influence felt by the County Council, which has taken its opinion on many important matters, such as the Metropolitan Building Bye-laws, the laying out of new streets, and of the various improvements contemplated; but it is also recognised by Parliament, and exercises, under statutory powers, the examination for district surveyors in London, and of building surveyors under Local Authorities. In some provincial cities I find that Architectural Societies obtain greater recognition than we have hitherto secured, their opening meetings year by year being graced by the presence of the Lord Mayors, Mayors, and civic magnates."

THE celebrated Holbein, possessed by the Barbers' Company, representing Henry VIII. granting the charter to the Barber-Surgeons' Company, which was exhibited at the Guildhall Gallery during the recent Art Loan Exhibition, has returned to its old home in Barbers' Hall, Monkwell Street. The attempt to purchase it by public subscription has failed, the amount subscribed being so small as to render any further prosecution of the idea at the present time out of the question.

THE Exeter City Council has adopted a report of the Navigation Committee, which recommended extensive dredging operations in the estuary of the river Exe, whereby the area of anchorage in the bight would be largely increased, and the channels deepened and widened throughout. The dredging will be undertaken by Sir John Jackson (contractor of Keyham Extension Works), and the operations are expected to extend over five or six years.

IT is reported from Athens that the Government will introduce a Bill during the approaching Session for holding quadrennial Olympic games in the Stadion. M. Averoff, who partially restored the Stadion for the games on the last occasion, has now, in a letter to the Crown Prince, offered to defray the entire expense of reconstructing the Stadion in Pentelic marble. This offer will cost 3,500,000 drachmas.

AT a meeting of the Streets and Buildings Committee of the York Corporation the specification supplied by Professor Kennedy, for the electric lighting of the city was discussed, and it was resolved, in accordance with the instructions of the Council, to at once advertise for tenders on the basis of that specification.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
November 4th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

AN addition to the number of open spaces has been made by the London County Council, which has now sanctioned the purchase of a piece of vacant land in East Street, Walworth, for the purpose of a public recreation ground. The area is about seven-eighths of an acre, situated in a thickly occupied district. The Council rightly thinks that the acquisition of this ground will tend to brighten the lives of thousands of children whose only opportunity of play is the already overcrowded streets, where they incur danger to themselves and are a serious inconvenience to the traffic. The land costs £5,375, of which the Newington Vestry pays £2,500, and the Metropolitan Public Gardens Association £375, leaving the Council to contribute a sum equal to that of the vestry. The Gardens Association, moreover, is prepared to spend nearly £1,000 in laying out the ground.

THE recently unveiled Cameron Memorial fountain is situated at Charing Cross, the junction of Woodside Crescent and Sauchiehall Street, Glasgow. It stands in the centre of the street in line with and a little to the west of the Grand Hotel. The structure is designed in the style of the French Renaissance. The lower part or base is formed of Peterhead granite, the basin being polished, and the other parts "ringed;" the base stands about 4 ft. 6 in high. The upper part is formed in Doulton ware of a brown buff colour, and rises to a total height of 27 ft. above the pavement. The top of the memorial is dome-shaped with space for the illuminated clock with four dials. The space under the clock is occupied by two iron grill panels, and on the other two sides bronze medallions of Sir Charles Cameron have been inserted. The medallions were modelled by Mr. Tinworth, of London. Beneath the medallion is the following inscription framed in Doulton ware:—"In honour of Sir Charles Cameron, Bart., D.L., LL D., in recognition of his many services to this city and to Scotland during 21 years in Parliament, 1874–1895."

AT the St. George's Gallery, Grafton Street, the autumn season has been opened with an exhibition of paintings by Stadislas Lépine, who was the pupil of Corot. Last winter was devoted to the Romanticists; this winter, apparently, we are to be shown the work of their followers. Lépine cannot by any means be ranked with the men from whom he borrowed style and methods. He studied in a good school, which is so much in his favour, and he studied intelligently. But he was without originality of observation; his work has no special individuality. Pictures, which we fancy must be those of his later years, are full of a pleasant atmospheric quality—see the little "Seine at Rouen" (7)—and are an immense improvement upon his early landscapes, which are flat and hard, as, for instance, "Low Tide at Havre" (8). But from first to last, his work strikes one as a re-echo of somebody else. It is not always Corot whose influence can be traced, though there is no mistaking it in such a painting as "The Studio at Montmartre" (4), where the trees are quite Corotesque; or, as "The Banks of a River" (31), where the arrangement, with the little boat on the stream below the thick clump of foliage and the distant white town climbing mistily up the hillside, or something very like it, we have seen in any number of the master's canvases. But to Daubigny, it is clear, he went as often for inspiration; look at the "Sunset" (42), or "The Seine" (36); while here and there are passages in his work that recall Diaz or Rousseau.



COWDEN CHURCH, KENT: BY F. LISHMAN.

LAST month was commemorated the foundation of St. George's Hospital in Grosvenor Place. In the year 1719 a home was opened at Petty France, in Westminster, for the benefit of the sick and lame in that locality. As funds increased it was moved to Chapel Street, and became the infirmary for Westminster. This excellent institution, fulfilling a want so much felt in the neighbourhood, met with such hearty support that the governors found themselves, fourteen years afterwards, in a position to acquire larger premises. The majority of the body decided to transfer the infirmary to Castle Lane, Westminster. An influential majority, however, determined to seize the opportunity of renting Lanesborough House, Hyde Park, at £60 a-year, chiefly on account of its more salubrious position—a course which they accordingly carried out on the 19th October, 1733, and thus there were two institutions instead of one. Lanesborough Mansion became an infirmary, with sixty patients, and displayed on the façade a distich, "It is my delight to be both in town and country." It was rebuilt in 1831, and is now the well-known St. George's Hospital, with 351 for the total number of beds.



EYNESFORD CHURCH, KENT.

AN energetic plea for its existence has been issued in pamplet form by the National Society for Checking the Abuses of Public Advertising. The pamphlet directs attention to the disfigurement of picturesque places by the horrid art of the bill-sticker and his congeners; but the fact is that in towns the evil is in a fair way of righting itself. There is at least a perceptible hope that our hoardings may gradually lose a great portion of their hideousness. From a purely practical point of view, advertisers have begun to understand that, although an advertisement must attract attention, it need not and should not invite detestation. It is not a recognition of the principle, laid down in the Society's pamphlet, that "the eye has rights," which has induced the designers of posters to adopt the Artistic methods of Cheret and his school, but simply the growing belief that in pleasing the eye rather than in shocking it is the most effective publicity promoted. With the desire of the Society to prevent the desecration of rural places where even the most masterly of posters is an outrage, most people will fully sympathise, though we may be allowed to express a painful doubt whether the æsthetic education of the masses is likely to fight successfully against the temptation to get a profitable advertisement wherever found.

THE question of the erection of the proposed new Church for Greyfriars, Edinburgh, is being pressed on the attention of the University Court and the Town Council. Apparently it is being feared there is some danger of not getting after all the new £20,000 building. The University Extension Fund is exhausted. It was only by a special effort that there was raised, a few months ago a sum sufficient to secure the erection of the new south wing of the Marischal College buildings. There is nothing left, and no prospect of anything being obtained for some time for the removal of the old Greyfriars Church, and the erection on its site of the proposed "administration block.' In these circumstances, therefore, the common sense course obviously is to allow the old Church to stand and wait until circumstances are ripe for another effort in the way of extension. If the Church may seem to stand more or less in the way of the College, that should not concern the authorities of the Establishment, seeing that the amenities of the building have been vastly improved, and its Architectural beauties brought into public view by the operations in connection with the new University buildings; and as its removal is not necessary to clear the site for the new Physics Department,

there is no reason for the University authorities doing anything further with respect to it in the meantime. And there is one very good reason for their not seeking to hurry on its re-erection in the fact that they ought to retain in their own hands the site proposed to be given up to it as a site that is sure to be required by and bye for University purposes.

IN connection with the Birkbeck Literary and Scientific Institution, the annual exhibition of drawings and paintings by the students of the School of Art was held recently in the Art School at the Institute, Chancery Lane. The exhibition was very interesting, and the work, taken all round, showed considerable merit, and earned the commendation of the examiners. Eight of the pictures were selected by the Science and Art Department for the National Competition, and, although no special medals were won by the students of this School, the works selected showed considerable promise, especially one of the still life subjects, and the work of one of the students in the life class. A scholarship at the Royal Academy was, however obtained by René A. Breun. This success, together with the exceptionally high percentage of first-class passes gained in the May examinations, shows that the usual high standard reached by the students at this School, under the care of Mr. A. W. Mason, has been fully maintained, if not exceeded, during the past year. The number of students attending the School during the year has been 346, of whom 95 attended the classes during the day. At the May examinations 121 students attended and obtained 145 first-class passes 82 of which were for advanced subjects, five papers being marked excellent.

ST. ANDREW'S PRO-CATHEDRAL, Dundee, after having been closed for the past six weeks in order that the interior might be repaired, redecorated, and generally improved, has been reopened. The work of repainting has been designed in accordance with the best examples of ecclesiastical decoration, and in harmony with the building. Special care has been bestowed upon the Sanctuary, and the rich Altar has been taken as the keynote for the tone and general effect of the surroundings. The ceiling is finished in pale blue, relieved with gold stars, a light and aerial effect being gained by radiations in gold and dark blue from the top of the cornice. The cornice itself is finished in soft tints, relieved with gold, and further enriched by a fringe worked out in geometrical forms. The walls of the Sanctuary are coloured in buff, relieved in diaper pattern of gold *fleur de lis*. The rich colouring of the dado and responds—the former being designed in intricate arcading and ornamental ashlar work—is particularly effective. The main walls of the Church are coloured in a soft sage green, the spandrils of the arches and along the top of the dado being relieved with free decorative stencil work, while the ceiling is coloured light buff, panelled and relieved by the main ribs of the roof, which are decorated with colour and relieved with gold. The spandrils under the front of the gallery have been treated in the same manner as the large spandrils of the roof. The work has been carefully carried out by the contractor, Mr. J. Thomson. The whole of the improvements and decorations have been carried out from the designs prepared by Mr. T. Martin Cappon, Architect.

GALASHIELS has organised a Fine Art Exhibition, which is being held in the Masonic Hall, where the works, to the number of over 300, have been hung as satisfactorily as the accommodation will allow by Messrs. Tom Scott, A.R.S.A., and Pollok Nisbet, A.R.S.A. Oils and water-colours are pretty equally divided, and in addition there are a few works in black and white, and several Architectural drawings. To strengthen the Exhibition with loan works, neighbouring collectors have given freely, and the result has been to impart a wider and more varied interest to the display than it could have enjoyed had it been confined to purely local achievement. Among those to whom the Committee are indebted for loan pictures are Provost Dickson, Mr. Andrew Brown, Mr. George Dickson, Mr. G. Bathgate, Mr. James Sanderson, Woodlands; Mr. John Murray, Glenmayne; Mr. J. B. Anderson, Selkirk; Mr. A. L. Brown, Mr. T. Craig Brown, Selkirk; Mr. Kenneth Cochrane, and Mr. T. J. S. Roberts, Abbotsford. The chief place of honour on the walls has been assigned to a loan picture—Sir George Reid's "St. Mary's Loch," seen in the Academy Galleries some years ago—a work remarkable for its solemn and peaceful beauty. The Dutch painter, H. W. Mesdag, is represented by three characteristic sea pieces; there is a choice example of Montecelli; the Provost has sent a charming Corot; and Anton Mauve, P. H. Pavy, W. B. Tholen, and Blommers may also be studied from specimens of their work which the Committee have been fortunate in securing.

THE memorial of the late Dr. Bruce in St. Nicholas' Cathedral Church, Newcastle, was recently unveiled by the Earl of Ravensworth. The memorial, which occupies the centre of the porch, is a Renaissance altar tomb, and is the work of Mr. George Simonds. The lower part is a sarcophagus of the grey marble commonly known as Sicilian marble. It is ornamented at the foot with the coat of arms of the Bruce family, while at the corners there are corner pieces of ornament consisting of poppy leaves and poppy heads, symbolical of the peaceful sleep of the subject. The sarcophagus is supported by four lion's feet. On the top of the sarcophagus is a bier richly carved, of white statuary marble. On the bier is a recumbent figure of Dr. Bruce in his doctor's robes. At the foot there is a fragment of a mural tablet that was found by Dr. Bruce buried in the walls of a farmhouse, together with an open book, on the leaves of which is engraved a quotation from the third edition of his "Roman Wall."

A FRENCH archæologist, Baron de Bay, has been occupied for some months past in the neighbourhood of Tomsk, Siberia, in excavating *kurgans*, the old turtle-backed burying mounds found in many parts of Russia. Fifteen of these *kurgans* have been opened, and a curious and significant discovery made. These mounds, which date back to before the Russian conquest of Siberia, contain quantities of beads, earrings, knives with artistically finished bone hafts, copper kettles, engraved rings, and silver ornaments, bracelets, &c. The oldest of these belong to the thirteenth century. Those *kurgans*, on the other hand, which date only from about three centuries ago (Tomsk was founded in 1604) contain comparatively little of anything, hardly any articles of metal, except a few of the rudest forms of wire rings and earrings, and, for the most part, arrowheads, knives, buckles, &c., of bone, showing a much poorer stage of civilisation.

AT Mungsten, between Remscheld and Solingen, the loftiest viaduct on any railway in Europe is now being constructed by the Prussian State Railway Department. It will eclipse, both in height and width, even the celebrated Douro Bridge at Oporto. The total height of the Douro Bridge is 68 yards, whereas the viaduct at Mungsten will attain an altitude of 353 feet. The span of the central arch at Douro measures 530 feet, while that at Mungsten will be 570 feet. Upwards of 1,700 tons of ironwork will be required for the principal arch; the total for all the branches will amount to 5,000 tons. Six colossal side pillars will form a support for the remaining portion of the bridge. The cost of the viaduct is estimated at £225,000.

AMONG plans privately discussed for raising a national memorial to the late Primate, is one for a Benson Tower to Truro Cathedral. The Cathedral building was the scheme of Dr. Benson while he was Bishop of Truro, and he took close personal interest in it. Many valuable special gifts have been made in the way of extras and accessories, but although the original estimate of £80,000 has been largely exceeded, something like £40,000 is required to complete the building. The design is cruciform, but at present only the choir and the two transepts exist, giving the building an ugly, uncouth exterior, though it is very beautiful within. The great central tower and the nave have to be added, and it is thought they would constitute a suitable memorial to the great Archbishop.

AN Austrian Naval Architect, Herr C. A. Gagstatter, has defined the limitation of the rule that the longer a vessel the better she is for speed and carrying capacity. If a steamer could be built one mile long and about 60 ft. wide, with ample motive power, she could undoubtedly attain fabulous speed. Only one-thirtieth part of her length would have to overcome the water's inertia, while the rest of the vessel would experience only surface friction. But such a vessel involves a dangerous, yielding, unsolid structure, exposed to enormous strains, and is liable to be broken in two. He consequently fixes the limit of length at nine widths.

A CORRESPONDENT calls our attention to the following delicious effusion in the advertisement columns of the Daily News, which he thinks is worthy of diffusion among Architects, as an example of clerical methods of raising the wind:—

NELSON AND BURNHAM THORPE.

He who taught Englishmen to do their duty,
And girt with wooden walls his native isle,
Asks for ONE SHILLING to restore to beauty
The church which brooded o'er his infant smile.

Burnham Thorpe Rectory, Lynn, October, 1896.

The last line is inimitable; the Laureate could not do better. Nelson's father was rector of Burnham Thorpe, and the memory of the hero of the Nile and Trafalgar is invoked to scrape his church.

IT is not generally known that the very interesting Norman Church of Barfreyston, about six miles from Canterbury, was entirely rebuilt at the beginning of the century. It appears from a paragraph in a recently published work "The Gillmans, of Highgate," by Alexander Gillman (p. 30), the Rev. James Gillman, the then rector, who was the grandson of James Gillman, surgeon, the friend of Coleridge, finding, as it is alleged, that the foundations of the Church were defective, pulled down, about 1837, the principal walls of the building to the foundation, the stones being numbered and afterwards replaced under the superintendence of Mr. Twopenny, the Architect. This accounts for a certain air of newness and absence of texture on the stonework which is noticeable in the Church. The same operation was carried out some years ago to one side of the choir of St. Saviour's, Southwark, with very lamentable results.

SOME time ago it was decided that a statue of Mr. Walker, the late Chairman of the North British Railway Company, should be erected in the reconstructed booking-hall of the Waverley Station, and designs were invited from a number of Scottish sculptors. Seven of these took part in the competition, and the Committee have now selected the design of Mr. Birnie Rhind, and have entrusted him with the commission of carrying it into effect. The late Mr. Walker is represented seated on a chair of old English design, in a slightly recessed niche formed in one of the bays in the booking-hall of the reconstructed station. The moulded rectangular pedestal supporting the statue projects 3 feet 6 inches from the wall, and is 5 feet in height. On the two front angles are bronze acanthus ornaments, which terminate on a shaped base with lion's claws, while in front under the cornice will be placed a decorative bronze panel bearing inscription. The niche behind the figure is elliptical on plan, with semi-circular top enriched with clam shell. The pedestal and niche will be executed in yellow Prudham free-stone, the material of which the hall is being built. The cost will be over £1,000.

A HOUSE built of tubes is the latest invention. The advantages are, according to the inventor, who is a German, a constant temperature, and, incidentally, strength, comfort, and beauty. He first put up a frame of water tubing, allowing continuous circulation to a stream of water. Around this frame he put up his house in the ordinary way. The peculiarity is that all floors and ceilings are crossed and re-crossed by the water pipes. The water, having passed through horizontal tubes under the floors and ceilings, passes through the vertical tubes until all have been gone through. In the summer, fresh, cool water circulates under pressure through the network of tubes, cools off the walls, and, after having run its course, flows considerably warmer than when it entered. In its course it has absorbed much heat, which it carries away. During the long and severe winter, the water entering through the basement is first heated to nearly 100 degrees and then forced through the

ceiling. Of course much of the heat is left all over the house, and at the outlet the temperature of the water is about 40 degrees. The speed of the circulation of water can be regulated so as to allow fixing a certain temperature, equal throughout the building.



HEVER CHURCH · KENT ·

FROM A SKETCH BY F. LISHMAN.

"THE City of Gold," it is rumoured, will be to the Paris Exhibition of 1900 what the Eiffel Tower was to the last great show, ten years since. There had always been an idea of reconstructing in effigy the Pont du Change, the Rialto of mediæval Paris, and this suggested the far more grandiose project of illustrating the whole history of money and the industries connected therewith. The aim, in the first place, is to trace gold, silver, and copper coinage from mine to mint and from mint to mart, each step in the progress being exemplified by working models, if not by the machinery in actual use. The substitution of paper for specie will then be dealt with, and it is proposed to reveal the intricacies of the entire credit system as carried out in great banking establishments, though one can hardly conceive how such an object-lesson can be rendered intelligible or interesting to a passing crowd of sightseers.

IN the course of excavations made in connection with the main-drainage works, Ormond Quay, Dublin, some 20 ft. below the surface, the workmen came upon an ancient vessel, the bow projecting towards the river. It is supposed that she was swallowed up in the sands which formed the bank long before the quays were built. The timbers are almost all fastened together by wooden plugs, very little iron having been employed. A quantity of coal and a 14-lb. iron cannon-ball were found. The remains of a second ship were unearthed having the same peculiarities of construction. It is believed that these vessels are as old as the days of Charles I. or even Elizabeth. Near to the spot the workmen also dug up a large number of tobacco pipes, seemingly made of glazed clay, the bowls being in almost a straight line with the shank. It is probable that these will immediately be submitted to skilled antiquarian inspection.

THE retirement is announced of Mr. J. R. Bell from his position as consulting engineer to the Government of India. Mr. Bell was educated at the University of Aberdeen, and served his articles as an engineer with Messrs. Gardner and Sons, the railway engineers. After the completion of his articles he was first appointed resident engineer of the Potteries, Shrewsbury, and North Wales Railway. In 1868 he entered the service of the Indian Government as a first grade assistant engineer, and in that capacity he was connected with the construction of no fewer than eleven railways and four State bridges. The first work that brought him to the front was the Adamwahan Bridge, a gigantic engineering undertaking, and this was followed by the laying of the line from Ruk to Sibi in an unprecedentedly short space of time, and under the greatest difficulties. It was on the Muttra Jumna Bridge that he first introduced the twin well system, now universally approved; and he is also well known in the profession by his invention of dredging tools.

AN advance copy of the Motor Car Regulations has been issued. In the order a motor car, or "light locomotive," is defined as a "vehicle propelled by mechanical power, which is under three tons in weight unladen, and is not used for the purpose of drawing more than one vehicle (such vehicle, with its locomotive, not exceeding in weight unladen four tons), and so constructed that no smoke or visible vapour is emitted therefrom except in temporary or exceptional circumstances." As to the construction of motor cars, the order provides that if a car exceeds three hundredweight in weight it shall be capable of being so worked that it may travel either forward or backward, and, whatever its weight, it must not exceed 7½ ft. in width, measured between its extreme projecting points. As to tyres, the order says that if a car weighs between three-quarters and one ton the tyres must be not less than 2½ in. wide; if between one and two tons, 3 in.; and if between two and three tons, 4 in. There must be no bosses or projections, except in the case of pneumatic tyres, when there may be bosses or projections of the same material as the tyres. Every car must be provided with two independent brakes, in good working order, and the brakes must be so powerful that if the car is travelling at the rate of fourteen miles an hour it can be stopped within a distance of 50 feet. As in the case of ordinary vehicles, the name and address of the owner must be written upon the side of the car, which must be driven by a person competent to control it. Lamps must be carried at night, and, with the view of further safe-guarding the public, it is provided that the driver shall, whenever necessary, give audible and sufficient warning of the approach and position of the car by sounding a bell or by other sufficient means. The driver must also, on the request of any police constable, or of any person having charge of a restive horse, or on any such constable or person putting up his hand as a signal for that purpose, cause the car to stop and to remain stationary so long as may be reasonably necessary. On the important subject of speed, the Act provides that motor cars shall not be driven along public highways at a greater speed than fourteen miles an hour or any less speed that may be prescribed by the regulations of the Local Government Board. The present order makes no regulations on this subject, and the Local Government Board states that it proposes to make no order regarding the question of speed until the general regulations have come into operation, and the local circumstances bearing upon the question have been fully ascertained.

AT the Louvre a special hall has been opened for the reception of the collections obtained from the excavations at Delphi undertaken by the French school in Athens, and presented to the museum by its director, M. Homolle. Considerable success has been accomplished at Delphi by the French school. The "Apotheosis of Hercules" is one subject, the exploits of Theseus form another design, and, among other interesting objects which are deserving of particular notice, are a sphinx and two statutes of Apollo.

IN the Museum of Antiquities at Constantinople may be seen a most interesting but battered tablet, with a long Greek inscription in it of seven lines. It was discovered in Jerusalem about the end of May, 1871, by the French archæologist, Clermont-Ganneau, at a considerable depth below the ground, in the foundations of an Arab house, not far from the Mosque of Omar, on what might have been the site of the Temple of Herod. This is one of the very few relics of that magnificent structure which have survived to our day. The inscription is in capital monumental letters, and may be translated thus: "No stranger can enter within the balustrade round the sanctuary and enclosures. Whoever is caught will be responsible to himself for his death." Josephus gives a graphic description of Herod's Temple, and mentions that the court of the Gentiles was separated from the part that was restricted to the Jews by two parallel walls, about 15 ft. apart. The outer wall was about 4½ ft. high. It was an elaborately carved stone balustrade, with thirteen doors in it, each of which had a pillar in front of it, bearing an inscription in Greek and Latin, forbidding any foreigner to enter the enclosure on pain of death. The prohibition in question, however, was long regarded as apocryphal, even although Philo spoke of the inscription, and corroborated the statement of the Jewish historian. But the discovery of Clermont-Ganneau has placed the matter beyond dispute. The tablet which he found was part of one of the columns guarding the inner sanctuary from the approach of unhallowed feet. According to Clermont-Ganneau, the tablet is the most ancient, as well as the most interesting, Greek inscription which archæological investigation in Jerusalem has produced. It supplies a standard of comparison by which to distinguish Herodian sculpture and palæographic works from those of previous or later date.

THE new Glasgow Improvement Bill which the Corporation has drafted for promotion in Parliament, contains a number of important provisions. One is for the widening of Nelson Street, a narrow lane leading from the Trongate, near Glasgow Cross, to the Central Police Office at Bell Street. Power is also sought to deal with



EDENBRIDGE CHURCH, KENT.

districts of the city which may at any time after the passing of the Act be in such a congested, insanitary, or unhealthy condition as to require to be reconstructed or improved, or which may require to be dealt with in order to have street improvements effected. The bill also contains provisions as to the character and procedure of the arbitration in cases of compulsory purchase. Authority is asked to take down the whole or any part of buildings acquired, and lay out the lands in such manner as they deem expedient; and to erect and maintain dwelling houses (including model lodging houses) for mechanics, labourers, and other persons of the working and poorer classes. The Corporation undertakes not to eject any number of the labouring classes exceeding five hundred without a certificate from the Sheriff that other and suitable accommodation has been provided, or exists, within the city or its immediate neighbourhood. As the improvements will substantially and permanently increase in value the lands in the neighbourhood, the Corporation asks powers to place an improvement charge on such property. The owner, lessee, or occupier may apply to the Sheriff to appoint an independent valuer, who shall take into consideration only the value of the lands independent of the improvements. Other clauses of the Bill deal with the Corporation's purchase of the Govan Tramways, the reduction of the Lord Provost's tenure of office to one year, the annexation of certain lands in Lanarkshire, and the use of school-rooms for municipal election purposes.

SIR JAMES RAMSDEN, the maker of Barrow, whose death was recently announced, acted in his early days as assistant-engineer to the Furness Railway, and subsequently became general manager and secretary. From 1866, he was a director of the Company, and only resigned that post last year. Barrow-in-Furness owes to him not only the development of the railway system there, but the creation of the Hematite Steel Company, and the Barrow Shipbuilding Company. The impetus thus given to the town's trade led, in 1866, to a request for incorporation, which was soon granted, and in 1867, Sir James, hen Mr. Ramsden, was elected first mayor of the town. His public services were acknowledged by the inhabitants of Barrow, in 1872, by the erection of a bronze statue of him, by Noble, which was unveiled by the Duke of Devonshire. He was knighted the same year.

IT is always refreshing to listen to the utterances of an optimist. Under this cheerful category we must certainly reckon Mr. Alma-Tadema, who, in the little address he delivered at Southwark at the opening of a Free Picture Exhibition, committed himself to the declaration that Art is a great moral power; that it opens our eyes to the beautiful and makes us discard the ugly; also that this is the reason why Artists, as a rule, are happy beings. Mr. Alma-Tadema is an expert, and due weight attaches to his evidence, which we confess to finding very agreeable. Assuming its accuracy, we trust that our Artists will continue to cultivate their felicity, if only as a set-off against the prevailing misery which appears to afflict their literary colleagues.

THREE further instances of vagaries in tendering have been sent by correspondents. In the case of the competition for the provision of certain engineering works at the Gore Farm Hospital of the Metropolitan Asylums Board, the highest tender amounted to £6,260, and the lowest to £2,068; for the erection of a block of shops at Stockton-on-Tees, the tenders varied between £10,829 and £6,737; and in the competition for docking and repairing the s.s. "Bazalgette," for the London County Council, the top price was £405, and the lowest £180 16s.

UPON the subject of technical education in London, Mr. E. Bayley, Chairman of the Borough Polytechnic, says:—"The existing class-rooms and workshops of the Borough Polytechnic Institute are in constant use, and are quite insufficient to accommodate the large number of students now in attendance, and it is impossible to open new classes in the present buildings. The largest room in the Institute, now used for lectures and concerts, will only hold 350 persons, and is very inconvenient. The governing body desires to erect a building consisting of five workshops in the basement, with a gymnasium above which can be used when required as a hall, and to build over one of the existing rooms a cookery class room. The cost of workshops and gymnasium and fittings is estimated at £5,815, and of the cookery class-room and fittings £870, together £6,685, or a total expenditure, after payment of Architects' fees and law charges, of £7,035. To meet this cost there is in hand or promised a sum of £2,930. The governing body appeals for sufficient funds to enable them to carry out the proposed building extension.'

AT the Mansion House, on Wednesday, was opened the annual exhibition of hand-turning in wood, which is held under the patronage of the Turners' Company. The display, though small is of an interesting character, which accounts for most of the exhibits being nearly all sold, and from the judges' report it is fully up to the standard of excellence looked for in quality of work, utility, and design. The apprentices this year have done well, whilst the amateurs have in a degree exceeded all previous efforts. In competing for the prizes there are a number of conditions from which the candidates may make a choice, but it should, however, be stated that very often first awards are given for excellence of tuning as applicable to the simplest objects of every-day use. The qualities which the judges take most into consideration in giving their decisions, refer to the beauty of the design, the general excellence of the workmanship, its fitness for the intended purpose, and symmetry of shape. The first prize was awarded to the collection of balusters sent in by Mr. W. Watson, of Finsbury Park, N.; this includes, besides a silver medal and five guineas, the Freedom of the Company, and, subject to the consent of the Court of Aldermen, that of the City of London. Mr. F. Powers, Andover, came second with an oak-turned table, which can be put to several useful purposes. He was followed by Mr. T. W. David, Cardiff, with a lock-rail for drawing-room door; and other awards for good work fell to Mr. Gleeson, Cardiff; Mr. John Howard, jun., Newington Butts; Mr. J. Howard, Guildford; and Mr. Brocklebank, Southwark. In the apprentices' class, Howard, of Newington Butts, was first; and in the amateur class, first certificates of merit were won by Mr. S. H. Harding and the Rev. C. C. Elison for some pretty designs in ivory.

AN offer has been made for the old "Herber Tower," Newcastle, for the purpose of razing it to the ground, and erecting on the site a new bake-house. The Armourers', Curriers', and Feltmakers' Company, who are the owners, have, however, offered it to the Newcastle Society of Antiquaries before accepting the offer made them, and at a recent meeting of the members it was decided to appoint a committee to endeavour to arrange the purchase with a view to keeping the tower intact. The town walls of Newcastle were originally 12 feet high and 8 feet thick, but authorities vary on this point. They were strengthened by a wide fosse. One interesting feature about them was the towers and turrets which commanded them at intervals. These latter were for the most part made square, "with the effigies of men cut in stone upon the tops of them, as though they were watching, and they were called garrett, which had square holes over the walls to throw stones down" (Bourne). There are the remains of four of these towers in the west walls—three of them, seemingly, in tolerable repair. But the fourth, Durham Tower, which is the nearest to the Westgate, is now a complete wreck and ruin. Herber Tower was repaired in 1620, at the expense of the Company of Feltmakers, Curriers, and Armourers, whose meeting-place it then was. In the books of this Society its name is given as Harbot Tower. At the time when the proposed removal of the Carliol, or Weavers' Tower, to make way for the Free Library, was the subject of much local controversy, it was urged that there really was no great reason to preserve that building, inasmuch as this Herber Tower was a much better example of these old places, and, in Architecture, much more in accordance with the ancient pattern; and this argument, as it turned out, had considerable weight with some of the authorities.

IT has often been said of George Fripp, whose death was chronicled a few days ago, that heaven would be no heaven for him if there was not plenty of yellow ochre to be found there. Certainly no water-colourist has ever utilized that pigment so thoroughly, or evolved so much sunlight out of it. Another feature of his work was the elaboration he bestowed upon his preliminary pencil-work; and on the more important of his Scottish mountain subjects his outline oftentimes occupied him for weeks. As a result there have been few water-colours produced in which one could travel up and down the breadth of their lands with more delight. In his deer-forest subjects every crag would be recognized by a gillie, although the artistic completeness in no wise suffered from this accuracy. His drawings were almost always a reflection of the sunniness and charming simplicity of his manner; and with his disappearance from the scene goes another of the race of gentle painters whose lives were so thoroughly attuned to their Art.

MR. BRITON RIVIERE has, in deference to the wish of some of his colleagues, agreed to allow his name to be placed on the list of candidates for the Presidentship of the Royal Academy. The election this week will be of an Academician not an Associate; and it is said that the choice will lie between Sir A. Blomfield and Mr. Leader.

IN issuing a further appeal for funds for the restoration of Clonfert Cathedral, Canon M'Larney states that it is more than two years since the first appeal was made. At that time it was only contemplated to expend a comparatively small sum on the building, to keep it water-tight, so to speak. But, on consultation with Mr. J. F. Fuller, F.S.A., Architect to the representative body, it was considered that, in order properly to restore the building, an expenditure of £1,500 would be required. Up to the present, £463 is all that has been collected. It is very difficult for a country clergyman in the West of Ireland to collect such a large sum as £1,500. A considerable portion of the work of restoration has been carried out during the last twelve months by Mr. A. P. Sharp, builder and contractor, of 17, Great Brunswick Street, Dublin, and the work has been done in sections. At present the chancel is being restored. It would be a pity to have to stop the work for want of funds. The Cathedral is one of the smallest in the kingdom, and dates from the year 558. It is a most interesting historic building. The beautiful Hiberno-Romanesque twelfth-century doorway is well known to antiquarians.

A COMMUNICATION has been addressed to Lord Cromer, by the Society for the Protection of Ancient Buildings, upon the subject of the defacement of the Nile scenery caused by the blasting operations now being carried on to obtain limestone for the purpose of embanking the river. The engineers, in order to obtain the necessary materials, have taken to blowing up the cliffs, some of which run to the height of four or five hundred feet, and afford the most magnificent scenery. In this way much of their beauty has been seriously damaged. Many of the ancient tombs and quarries with which the cliffs are honeycombed, some of which contain drawings of columns and similar things of considerable historic value, are being blown to pieces. It is pointed out that although from time immemorial the stone has been used in enormous quantities, yet the ancients did not get it in the wasteful manner now practised, but seem to have taken the greatest care to cut out what they required, and no more.

THE Bridgewater Trustees have decided to remove their Worsley Depôt, which was founded a century ago by the Duke of Bridgewater, to Walkden, where the majority of their extensive collieries are situated. Near the old depôt is the entrance to one of the most wonderful canals in the world. The canal runs underground from Worsley to Deane Moor, near Bolton, and is connected by means of junctions with the whole of the Trustees' collieries, from which the coal was formerly conveyed in boats to the open Bridgewater Canal. The total length of the canal, including the junctions and arms, is not far short of 44 miles. This wonderful piece of engineering was carried out by Brindley, the Engineer.

PROFESSOR AITCHISON AT THE INSTITUTE.

THE PRESIDENTIAL ADDRESS ON MONDAY NIGHT.

IT has been said in the words of authority that "to every thing there is a season." It seems to me that on this opening of a new year, other things may be put aside for a general view of the Fine Art we profess, and of its inventors. I say inventors, for it seems to me that Architecture even more than music, has been invented by man; for music, however it may have come about, has, up to a certain point at least, the harmonious tunes of singing birds to imitate, however far it may have progressed since. While the shapes of leaves and flowers, of peaks and mountains, of glades and woods, and "arched walks of twilight groves," are certainly farther removed from finished masterpieces of Architecture, than an oratorio is removed from a choir of singing birds—I say this in no boastful spirit, but as a circumstance, I suppose generally acknowledged. I address myself to this subject in the thankful spirit that Dante felt when he looked at the stars, and in the ecstatic way in which Linnæus was affected when he saw the moor ablaze with blossoming gorse. I think the villager who said to the divine, "A thankful heart is the best worship an ignorant peasant can offer," was truly answered by the reply, "Or a learned prelate either;" and those divinely-gifted men, who created the Architectural masterpieces of the world, were as much "heaven-sent" as the flowers or the stars. The sublime, lovely, or frowning pieces of Architecture that still remain, besides the emotions they raised in the nation when they were built, have been a source of intellectual and æsthetic interest to all the cultivated since, and have been as well the means of raising the standard of excellence among semi-barbarous people; besides bearing witness to the past greatness and cultivation of the nation. It would perhaps not be amiss to point out now, what the

FINE ARTS DO FOR A NATION,

as in the midst of our great material prosperity their importance is apt to be overlooked. Those to whom all the Fine Arts are a closed book, are apt to say, when pressed, "What do these much vaunted Fine Arts do for mankind? They merely help to wile away an idle hour for those who profess to admire them." What they really do is this: they both instruct and charm mankind in the only way in which the bulk can be instructed and charmed; for the bulk of mankind have little time to spare from earning their living. They appeal to the emotions and thus convey, almost unperceived, the lessons that should be taught. As an American writer* says, "It becomes a serious question whether, without Art, the human race, in spite of the great work of science, would not sink into barbarism." They show to remote posterity the place a nation once held in civilisation; they give delight to those of each subsequent generation, who are capable of feeling æsthetic emotion, and they form a standard by which the excellence of present work can be measured; as J. A. Symonds said, "Nothing is imperishable but high thought, to which Art has communicated the indestructible form of beauty." That astute tyrant, Augustus Cæsar, by humouring the whims of the poets of his time, and by encouraging Architecture, came down, for twelve centuries at least, as the "good Augustus"; while Frederick the Great, by revenging himself on the avaricious caprices of Voltaire, has been handed down to us as "the image of some flaming devil's head, done in phosphorus on the walls of the black hole." Just consider the wealth and luxuries of Greece, when it had received Alexander's plunder of Asia; of Rome when, besides the plunder it had taken, it enjoyed the taxes of those countries that extend from the Danube to the Lybian desert, and from Anglesea to the Tigris. What remains of all this wealth and all these luxuries? You might as well ask, where are last year's snows? A few poems and pieces of eloquence, a few statues and bas-reliefs, some engraved gems, coins, plate, and jewellery; a little music, a few buildings, and many crumbling ruins.

* Mr. Leopold Eidlitz, "The Nature and Functions of Art."

To those visitors who are not Architects, but are patriotic, I may point out

THE SUPREME IMPORTANCE OF ARCHITECTURE

to a nation: the monuments marking the very places that once were great, and expressing the main characteristics of the nation. The poetry, the eloquence, and the music of the past become the cherished possessions of all civilised nations. The statues, the bas-reliefs, the engraved gems, the coins, the plate, and the jewellery, are spread over the civilised world; the Architectural monuments alone point out the places where the great life of the past nation once throbbed, and still enable us to penetrate the thoughts that created them, and to see the skilled handiwork of their people. Every Fine Art is more or less the exponent of the tendencies of its time. This is peculiarly the case with Architecture, as it is essentially a thing of the present; for whether it be for mere use, for use and adornement, or for glory alone, it is to meet the urgent needs of the present. The poets may give us episodes from ancient Greece or Rome, from Egypt, Assyria, Persia, or the Holy Land, from the ancient Britons, or from the days of the Gothic invasion. The painters and sculptors may give us subjects evoked by their imagination from the past, but Architecture must be of and for the present; past Architecture is only to be found in the countries that produced it, or in the scenes of the theatre. Unless the public will understand and highly appreciate Architecture, how can they expect it to be good? For it is only by the people cultivating a knowledge of Architecture, and so appreciating its beauties and emotional qualities, that a passionate love for its masterpieces can be engendered and the Architects rewarded; for the Architect's principal reward is the enthusiasm and gratitude his works excite.

ARCHITECTURE AS A FINE ART

probably arose from man's desire to propitiate his deities, or to express his gratitude for their protection, and to immortalise himself and his nation, rather than from a wish to improve his dwelling or to adorn his public buildings. Doubtless, in the dim past, before history was written, the main laws of Architectural composition were discovered, such as proportion, repetition, and variety, while the value of contrast in form, and in light and shadow, was probably a discovery coeval with that of these laws, if it did not precede their discovery. The great pyramids of Gizeh are the grandest examples of contrast I know. On the first glimpse of them you are struck by the value they give to the long unbroken line of the desert, while their shape was possibly suggested by a triangular sail on the horizon. Civilisation has been built up, as it were, grain by grain; it is like the coral reefs made by innumerable tiny and insignificant insects; but at last the reef defies the might of the stormy ocean; while the Fine Arts are the crowns of the different phases of civilisation. I am not going to drag you through the dim past, but only as far back as the Greeks, to whom we are indebted for the civilisation of Christendom.

THAT NOTHING COMES FROM NOTHING

is nowhere more apparent than in Architecture. The Greek temples are but glorified reproductions of the two-roomed Greek hut surrounded by a verandah. The Greeks, or at least the Ionians, were endowed with the gift of *definiteness*, before them unknown to the world, and saving them, the world was still imbued with vagueness. The Attic Greeks were blessed with a love of beauty, endowed with high intellectual capacities and with every artistic gift. The Greek creed even now is excellent: the possession by each man of wisdom, courage, temperance, and justice. Their daring to withstand the tyranny of Persia, then the overwhelming power in the world, shows a courage and resolution that has never been matched; and their victories at Marathon, at Salamis, and at Platæa, appear to us miraculous; while their perfection in all the Fine Arts is still supreme. Their masterpieces in poetry, in oratory, in history, in sculpture, and in Architecture, have never yet been equalled; and if one of their great paintings should ever be discovered, we may expect to find it inimitable too. The restraint they exercised in using ornament, and the simplicity and purity they attained, made their masterpieces the standards for the world, and this perfection was not confined to what may be called the great Fine Arts, but was exhibited in the products of the common trades and in the meanest utensils. So imbued were they with the highest beauties of nature, that when we see a fine specimen of the Indian water nut, or the shell of the king crab, we say these seem designed by a Greek Artist.

SIMPLICITY,

without which nothing great is achieved, was their constant aim. M. Anatole France has put this admirably: he says we all know what is meant by a simple style, although it is really the most elaborate. Nothing, for example, is simpler than sunlight, yet pure and white as it is, we know it to be composed of the seven prismatic colours. There is one thing to be remarked here, that this simplicity was easier to be attained when life was less complex, and wants were more restricted than at present. The pose of the savage is generally nobler than that of civilised man; so the Greek temple, surrounded by similar columns and with its half-dozen mouldings, was possible to be perfected; while life is not long enough to perfect a building of many chambers and many stories with domes, towers, and spires to express complex emotions. When Vitruvius gave rough rules for obtaining some of the Greek optical

REFINEMENTS IN BUILDINGS,

his meaning could not be understood by any Architect or scholar in Christendom, from the days of Charlemagne until Wilkins published his solution in 1812, and it was left for my predecessor in the chair, Mr. Penrose, to prove to the world the existence of these refinements in the buildings of the Acropolis. These refinements have made the Parthenon, the Erectheum, and the Propylæa like Nature's work, which never palls; for by the prolonged study of them you only find fresh beauties and fresh wonders. Those who have seen these buildings and have fitted themselves to enjoy them, are as thankful for them as for the beauty of the honeysuckle or the scent of the violet. It is quite refreshing to read the enthusiastic admiration of these monuments by so positive a philosopher as Renan. The Roman race, which was but a branch of the Greek family, may be called the practical brother, who seized on every invention of others that suited him, and who had the great art of welding together a vast empire by diplomacy and laws; as Professor Mommsen says, it is ridiculous to complain of the Romans because they could not carve like Phidias nor write like Aristophanes. The Romans were not born Artists but constructors, with a deep insight into the advantages of Architecture, and who certainly achieved in their monuments dignity and magnificence. No artistically cultivated person has passed those still remaining columns of the Forum of Nerva, without being struck with their dignity, nor the Triumphal Arches of Rome without appreciating their magnificence; while, from the combination of harmonic proportions with dramatic lighting, the inside of the Pantheon produces the most sublime effect in Europe. What sublimity, vastness and proportion will produce, when every scrap of moulding, sculpture and colour has been destroyed, may be seen in the halls of Caracalla's Baths! The Romans brought the arch, the groined vault, and the dome within the pale of Architecture. That continuation of Roman Architecture we call Byzantine has not, as far as I recollect, produced many effective exteriors; for St. Mark's, at Venice, owes its external charms to the middle ages. Structurally the Byzantines perfected the dome on pendentives, and invented the dome on a drum, which they often used to light interiors and passages.

BYZANTINE INTERIORS,

however, are mostly wonderfully striking in their shape, splendid from the effects of lovely marbles and gorgeous mosaics; and charm us as well by their judicious lighting. The effect of vastness in Santa Sophia, at Constantinople, with its dome "pendant by subtle magic," its suffused light, its peculiar and striking shapes, and the splendour of its decoration, make it one of the masterpieces of the world. Who would lose the glories of San Vitale, or the delicate sweetness of the Monastery in the Fields (Μονὴ τῆς χώρας); the plain and simple duomo of Torcello, or that jewelled casket of the West, St. Mark's? Who is not thankful for the mosques and minarets of Cairo, for the gorgeous chambers and courtyards of

the Alhambra, with their intricate patterns, magic stalactites, and splendid colouring? I do not attempt to give a list of all the masterpieces of the world since the Greek days, but only to mention a few that I have seen and been struck with. In Romanesque days Architects were only learning to build and to design, but they were great men with grand thoughts. Who has not been struck with the Romanesque Churches of Germany, with the doorway of Rochester Cathedral, with the naves of Durham and Southwell, and with the apse of Strasburg? Who would lose the fronts of St. Trophime at Arles, and St. Gilles, or the north-west doorway of the Cathedral at Rouen, if this last can be called Romanesque? At the emergence of Gothic in the 13th century, the Architects had learned to build stone ceilings to Churches in the shape of vaults, and to abut their thrusts by flying buttresses, and eventually to use stone with a mastery that was never possessed before or since; though perhaps a greater mastery over iron has been shown by our civil engineers. The Gothic Architects were too, perhaps, the most logical that the world has seen, and they lived at a time when the Greek and Indian geometry and mathematics were not only fashionable accomplishments but studies for which there was a passion, and doubtless the Saracen buildings the mediæval Architects had seen, gave them the idea of rivalling the monuments of their enemies; for it must be borne in mind that at the time of the Crusades the Saracens were the most civilised people in the world. Men's minds in the West were then filled with a mysterious and terrible theology, while Architects then realised that their knowledge, skill, thoughts, and aspirations,

COULD ONLY BE EXPRESSED BY BUILDING.

We see how the violent emotions of hope and fear, and of adoration were expressed by interiors of disproportionate height, by lofty towers, spires and pinnacles, by tracery as mysterious as the eddies of a stream, and, relatively to the monument, as fine as a spider's web; while the Sculptor lavished his work on every part that was to be ornamented. There was then a passion for the excessive and the mysterious, and a striving after the apparently miraculous. No Architect ever goes into a Gothic Cathedral without asking himself why it does not fall down. I suppose that Architecture has never been so closely and persistently studied for so many centuries by energetic races, unfettered by national or clerical conservatism. Besides this, Architecture and its accompanying Arts then offered the only career except fighting, to men who wished to exert every mental power without the fear of imprisonment and torture, or of death by fire. Who is not thankful for these pages of history, in which the thoughts, tastes, and aspirations and terrors of the Middle Ages are, as it were, petrified for our observation and delight, and are spread over all Europe, even to the Fortunate Islands? Who is not thankful for Nôtre Dame, for Amiens, Rheims, Coutances, and Rouen; for Lincoln, Salisbury, York, and Peterborough; for Toledo and Seville, and for the Cathedral of Las Palmas; for the Town Hall and the Cathedral of Siena; for the hospital, and for the bell tower of Giotto? If we want to have a corroboration of

MEDIÆVAL HISTORY AS WRITTEN IN ITS BUILDINGS,

we have but to read Dante, in whose Divine Comedy the spirit of the thirteenth century is enshrined. Even in Dante's days a new phase of life was being prepared. We see that he had studied some of the Roman writers; these and others were still more deeply and more fervently to be studied after his death. Sculpture even then had got new life from the study of Roman remains, painting had begun to throw off Byzantine fetters, and there was a hungering after a knowledge of Greek, as the fountain from which Rome drew her inspirations. Through the studies of scholars—and who at the latter part of the fourteenth century was not something of a scholar?—the whole vista of the life of classical antiquity was opened out to the Italians, and this world seemed to them suddenly changed from a prison full of misery and terrors into a lovely and fertile valley to be admired and enjoyed. They saw Greece and Rome bringing the uncivilised people of the earth to live under law, and teaching these savages the advanced Arts of life. The Italians found in the classic writers a style they longed for but despaired of attaining. A skill and idealism in sculpture, in die-sinking, and in gem engraving, that threw them into raptures; monuments and ruins of a magnitude and majesty that astonished and charmed them, and an unchecked and blameless pursuit of all the pleasures of this life; not to speak of perfect freedom in the unravelling of the mysteries of nature. Is it surprising that they fell down before the feet of the ancients and worshipped them? This attitude was natural, though unfortunate; still we have lovely work by the quattro and early cinquecentisti, who were mostly goldsmiths, sculptors, and painters; though it was certainly not

PROGRESSIVE ARCHITECTURE.

The host of lovely things at Venice alone would be too long to enumerate, from the Church of Santa Maria dei Miracoli to the Palazzo Vendramin, but there are beautiful monuments throughout Italy. The inside of Alberti's Temple to Isotta at Rimini, the Cancellaria and the Church of Santa Maria del Popolo at Rome, by the divine Bramante; the Town Hall at Brescia, the Casa dei Signori at Verona, and the beautiful palaces at Piacenza. Many of the sixteenth-century monuments, though heavier and duller than the earlier ones, in certain respects, excite our admiration: they were built after Vitruvius' work had been rediscovered and read, and his work was supposed to be a book of receipts for true Architecture, to be illustrated by the Roman ruins that had been measured. In spite of its glaring faults, the Palazzo Farnese is a majestic monument. The Pesaro Palace and the Church of Santa Maria della Salute of the seventeenth century, though somewhat *rococo*, will keep Longhena's memory alive. In London we have the portico of St. Paul's, Covent Garden, by Inigo Jones; St. Paul's Cathedral and the steeples of Wren, now, alas, fast disappearing; Somerset House by Chambers, Newgate by Dance, University College and the National Gallery by Wilkins, and the Bank of England by Soane, though these last two were after the Grecian revival. For the charming grafts of revived classic on Gothic structures, we must go to France, to Flanders, to Spain, to Portugal, and to Southern Germany. Who has failed to be grateful for Blois? That side of the palace that faces St. Vincent's Square is a masterpiece. There are, too, beautiful monuments of the early French Renaissance, including Chambord, scattered all over France; and we have Woolaton Hall in England. I must point out to you that all the lessons that Architecture has to teach have by no means been exhausted. It is, perhaps, more than any other Fine Art, the expression of the tendencies of the age in which its monuments were built, and this has not as yet attracted the attention of philosophers, though I think it will receive their attention in the future. If Cuvier could construct the effigies of extinct animals from one of their bones or talons, surely, in the future, philosophers will be able to learn the skill, and the tendencies of an epoch from its

ARCHITECTURAL MONUMENTS.

When the Architecture is genuine, more of the character and tastes of the people and the tendencies of the age can be learned from it than from paraphrase of deceased Architecture; yet even these show the acquirements of the Architects and Sculptors, the skill of the workmen, and some of the tendencies of the time. To wantonly destroy these built records is worse than to burn unpublished written ones, as the monuments contain much more history than most written records, and in destroying them you destroy an important lesson that is read to all, the embellishments of a city and a perennial honour to the country. "The accursed greed of gold" is destroying all the virtues of our people, as it did those of the Romans, and makes it hold nothing as sacred where gold is to be got by its destruction. The beautiful Hanover Chapel in Regent Street, designed by C. R. Cockerell, the most refined and accomplished of modern Architects, is now being pulled down to make way for shops, which pay heavier rates and taxes. The magnificent Church of St. Mary, Woolnoth, the masterpiece of Nicholas Hawksmoor, and a proof of the former piety of London, is threatened with destruction for a railway station.

(*To be continued.*)

Professional Items.

CHORLEY.—A new Church has been erected adjoining the old corrugated iron building in Brook Street, which partakes of the Perpendicular style. The materials used are Yorkshire Parpoints relieved with Runcorn red stone. The Architect is Mr. E. Kerby, of Liverpool, and the cost will be about £12,000.

HUDDERSFIED.—The inadequate accommodation afforded by the Rashcliffe Schools has necessitated the erection of larger premises, and a new school is in course of erection, on a site in St. Stephen's Road, opposite St. Stephen's Church, and will be Gothic in design, in consonance with the Church. It will contain a central hall, 31 ft. 6 in. by 24 ft., and two class-rooms, providing accommodation, in all, for 185 children. The divisions between class-rooms and hall will be movable glazed partitions, so that all the rooms can be throwu into one for large meetings. There is also a cloak-room and lavatory; the principal entrance will be from Bland Street. The accepted tenders amount to the sum of £1,510. The plans have been prepared by Mr. J. Berry, Architect, 9, Queen Street, Huddersfield, and the works are being carried out by the following contractors, viz:—Masons, Messrs. B. Graham and Sons; joiners, Messrs. Hampshire and Armitage; plumbers, Messrs. Sanderson Bros.; plasterers and slaters, Messrs. T. Longbottom and Sons; painters, Messrs. Haigh and Shaw; concreter and stone macadem asphalter, Mr. John Cooke; heating engineers, Messrs. Calvert and Co.

LOANHEAD.—A new Church has been built at Loanhead, at a cost of £1,800, and has accommodation for 350 persons. It is built of red Cumberland stone, and the characteristic features of the design are of the early Scottish period. Mr. Macnaughton, Glasgow, is the Architect.

BARNOLDSWICK.—The corner-stones of a Conservative Club were recently laid. The new building, in addition to the usual features of a political club, will have a large assembly room for meetings, and is being erected at a cost of £3,000, from the designs of Mr. J. W. Broughton, of Skipton.

LINLITHGOW.—St. Michael's Parish Church has for the last two years been undergoing restoration. The work embraced the removal of the stone partition which used to separate the chancel from the nave of the Church, and the entire removal of the galleries, and stairs leading thereto, these alterations opening up the Church from end to end, and leaving open to view the massive stone pillars and the handsome groining of the arches. The Church has also been refloored with stone, and has been reseated with oak pews. Billings, in his "Baronial and Ecclesiastical Antiquities," states that Linlithgow Church is the finest specimen of a pre-Reformation Church still extant, and that in respect of antiquity, dimensions, and Architectural beauty it is well worthy to rank with the ancient Cathedrals of St. Mungo, in Glasgow, and St. Giles, in Edinburgh.

LEEDS.—Emmanuel Church, after having been closed for some time for cleaning and decorating, has been re-opened. The decoration consists mainly in a series of frescoes, which have been painted upon the walls of the Chancel, Nave, and south Transept, by Messrs. Powell Brothers, of Park Square, Leeds. The Artists have introduced a good deal of outline, in strong Egyptian red, richer colouring being used only in the Chancel and Nave. The chief subjects on the Chancel walls are the Expulsion from Eden, the Annunciation, and the Adoration of the Magi. Upon the large space above the Chancel arch is shown the Saviour under the symbol of the Lamb, holding the banner of the Resurrection, and surrounded by a choir of Angels adoring and playing musical instruments. On either side of this picture are life-size figures of the twelve Apostles, these being carried upon both sides of the Nave walls; and in the Clerestory, between the windows, a series of niches contain many representatives of the prophets and martyrs—there being in the Clerestory alone twenty-five figures. The whole work has been executed under the personal supervision of Mr. Henry Walker, Architect, of Leeds.

LIVERPOOL.—Improvements and alterations have been carried out at St. Bride's Church at an outlay of £1,200. The east end has been improved by the addition of a window in the north side of the chancel, and the floor has been raised and a handsome choir formed, with tiled floor and new choir benches. The north bay under the gallery has been enclosed with a screen, forming an additional vestry, having an extra entrance from the outside, and on the south side a similar screen encloses the organ, and occupies the south bay under the gallery, and is carried from the ground floor to the ceiling. The organ, built by Messrs. Gray and Davison, in 1866, has been rebuilt by Messrs. Norman Brothers and Beard, of Norwich, and enlarged. The work of reconstruction was entrusted to Messrs. Woolfall and Eccles, Architects; the contractors for the work being Messrs. Brown and Backhouse, and the decorations by Messrs. Jelley and Co., both of Liverpool.

RASTRICK.—A new cookery school has been built, in conjunction with the Longroyd Schools, Rastrick, by the Brighthouse School Board, and also a science department at the Rastrick Grammar School. Mr. B. Stocks, of Huddersfield, was the Architect.

BRIGHTON.—The Lord Bishop of Chichester has consecrated the new Church of St. Augustine, Preston Park. The portion of the Church now built, consists of the nave of six bays, with north and south aisles, the total cost of which was £7,000. The nave is intended to seat 724 persons, but as the temporary arrangements for the accommodation of the choir will greatly reduce the number of the sittings, it is hoped that sufficient funds will be forthcoming, to enable Mr. Kirke and his committee to proceed with the chancel in a very short time. Moreover, the district to be assigned to St. Augustine's contains a population of about 6,000 people, and as the population is rapidly increasing, it is fully expected that the further accommodation afforded by the completion of the east end of the Church will soon be required. The interior of the new building is 86 ft. by 62 ft. 6 in., the height is about 50 ft., and in addition to the nave there are north and south aisles, north and south porches, temporary vestibule with main entrance at the west end. It is built of Sussex sandstone and red brick stone. The Church cannot be described as belonging strictly to any of the distinctive periods of Church Architecture. It is largely Gothic, and, generally speaking of the Early Perpendicular style. There are clerestory windows, slanting bays bringing in the nave by a gradual curve to the chancel arch, the roof rising up from fan-vaulting over-windows. The floor is laid with pitch pine and oak blocks. The Architect is Mr. Granville E. S. Streatfield; Mr. T. G. Jackson, A.R.A., being the consulting Architect; and Messrs. Longley and Son, of Crawley, the builders.

LLANCILLO.—The Parish Church of St. Peter, Llancillo, near Abergavenny, has been re-opened by the Bishop of Hereford, after undergoing thorough restoration, at a cost of about £500, which has been carried out by Mr. Newton Taylor, of Hereford, the Architect being Mr. Godsell.

BERRIEW, MONTGOMERYSHIRE.—An elaborate oak reredos is now being erected at St. Beuno Church. The design consists of a bold centre compartment filled with Sculpture, the subject of which is "Feed my Sheep," in bold relief. Flanking the centre are four niches, which contain figures on pedestals of four renowned Celtic saints of great local interest—(1) St. Gwen'rewi (Winifred), with royal crown, a plain cope-like cloak with Celtic ornament on the morse, sword of martyrdom in left hand, and model of her well in her right hand. (2) St. Beuno, the patron saint of the Church, and one of the Celtic saints best known to history. He lived in the end of the sixth and early part of the seventh century, was a fervent preacher and orator, the founder of many Churches, also the founder of "Bangor Beuno," a great monastic institution, where he spent a great part of his life as abbot. "Beuno's stone," from which he frequently preached, is in the neighbourhood. (3) St. Asap (Asaph) is in full pontificals, and in the attitude of benediction, his chasuble of ample size, his mitre a low one, his staff in left hand, the crook enriched with Celtic ornament and turned outwards. (4) St. Melangell (Monacella), whose life and works are well known, is represented as an abbess, her staff turned inwards, and a crouching hare at her feet. Her dress is arranged by much the same rule as that described for St. Beuno. The gradine is double, and the wall space on either side of the reredos has traceried panels. A small brass is fixed near the reredos with an inscription. The work has been carried out from the designs and under the superintendence of Mr. F. R. Kempson, of Cardiff and Hereford.

LONDON.—New chemical and physical laboratories and carpenter's workshop have been added by the Technical Educational Board of the London County Council to Tenison's School, Leicester Square. The rooms are commodious, and one of the class-rooms, a very lofty building, has been somewhat reduced in height, the space thus provided being utilised as an additional floor. The two laboratories measure 30 ft. by 25 ft., and the carpenter's workshop 20 ft. by 20 ft. In both the chemical and the physical laboratory about twenty boys can be accommodated. The architect was Mr. C. Mason; the builders, Messrs. Lee, of Warwick Street, while the appliances for the laboratories came from Messrs. Hanna, of the Strand.

GLOUCESTER.—The Local Government Board has sanctioned a loan of £7,500 for purchasing the Tuffley Court Estate as the site for a new workhouse.

LIVERPOOL.—There has been a wonderful response to the appeal made for funds to rebuild the Hospital for Consumption and Diseases of the Chest in Mount Pleasant, Liverpool. The new hospital, which will contain 76 beds, will cost about £50,000, of which £14,000 has already been promised. Plans of the new building, prepared by Mr. W. E. Willink, are on view, and from them it will be seen that the site at disposal will be used to the best possible advantage.

DUNDEE.—Mr. William Alexander, the City Architect, has reported to the Works Committee of the Council with reference to the recent underbuilding of the Albert Institute. He stated that the under-building and making good of the foundations of the structure had, so far as authorised, been completed. The operations extended over nearly twelve months, the walls being under-built in small portions at a time for the sake of greater security. There was not the slightest appearance of subsidence of any portion of the walls which had been dealt with, but the north-east and cross walls all showed evidence of subsidence at points. The entire cost had been £980.

LLANELLY.—Permanent buildings of the Llanelly Intermediate School are being erected in the Marble Hall Road, opposite the Infirmary, and will provide accommodation for 200 scholars, in the following proportion, viz., 120 boys and 80 girls. The buildings are being built of brick faced externally with pressed Cwmbran bricks, relieved with Corsham Down stone and terra-cotta. The floors throughout are to be wood block, and the roofs covered with best green slates with red tile ridge crestings. Special arrangements are to be made for ventilation and heating. The buildings and boundary walls will cost £5,000, and they are being erected from the designs and under the superintendence of Mr. W. H. Dashwood Capel, Architect, of Cardiff. The builder is Mr. Edgar G. Groom, Marble Hall Road, Llanelly.

SHEFFIELD.—A novel structure is being erected in High Street, on the small plot of land at the end of George Street, recently sold for £1,750. On the ground floor there is to be a shop, with basement, containing the usual offices. The first floor is to be used as a show case. Above these are four tiers of advertisement spaces, each about 7 ft. long by 3 ft. high. The structure will be mainly of iron and glass, and, considering the exigencies of the site, it will be fairly ornamental. Mr. George Webster, of Sheffield, is the contractor. The ironwork is being supplied and erected by Messrs. George Wright and Co., of Burton Weir Works, Rotherham. The Architect is Mr. Herbert W. Lockwood, of Pinstone Street.

STOCKTON.—New Almshouses are to be erected at the corner of Dixon Street and Mill Lane. The charity dates back to 1682, when almshouses for four persons were erected. In 1816, a new suite was built in High Street with the proceeds of a bequest. They accommodated 18 persons, and have been occupied as such till recently, when, by the authority of the Charity Commissioners, the trustees sold the property for £5,000. With this money a new site has been obtained in Dixon Street, and a building is to be erected which will also provide offices for the Stockton Overseers, and the Stockton Dispensary. Mr. T. W. T. Richardson, of Stockton, is the Architect, and Mr. W. Perks, of Stockton, is the contractor.

BILSTON.—A new Technical School is being erected on the Willenhall Road, at a cost of £5,600, in addition to which there will be the cost of internal fittings. The site of the new schools extends to over 1,433 square yards. Mr. C. L. N. Wilson (town surveyor), is the Architect, and Mr. Thomas Tildesley, Willenhall, the contractor, the contract price being £5,087. It is hoped the building will be ready for use in September, 1897. It is built of red brick, with terra-cotta facings, and contains a large lecture room, an examination room, and 14 smaller rooms, to be used as class rooms, laboratories, and workshops.

BARROW.—The Church school buildings are to be enlarged. The accommodation for infants at the school is very good, there being room for 120, but for the mixed school there is only accommodation for 96, and a small class-room, which has been condemned by the Education Department. At a recent meeting, plans prepared by Messrs. R. J. and J. Goodacre, of Leicester, were adopted, which did away with the old stuffy class-room, and provided for the erection of two fairly-sized rooms to accommodate respectively 40 and 60 scholars. The cost of building will be £800, and another £100 is required for the furnishing. Towards this £500 has been promised.

HELEN'S BAY.—Memorial stones of a Presbyterian Church, which is in course of erection at Helen's Bay, were recently laid by the Marquis of Dufferin. Messrs. Young & Mackenzie are the Architects, Mr. William Kerr, Builder, being entrusted with the work of construction. The work was commenced in June last, and the building, which occupies a site adjacent to Helen's Bay Railway Station, has now reached an advanced stage towards completion. It was arranged that a simple treatment of the Gothic Architecture, similar to other examples in the County Down, should be adopted and carried out with a like description of stonework. Scrabo sandstone from the Glebe Quarry is used for the dressings of the doors and windows, and Silurian slate for the walling. A portion only of the contemplated cruciform edifice is now erected. It comprises a single-span nave, twenty-six feet wide and fifty feet long, and is approached from a square porch, one side of which forms the base of a future tower and stone spire about one hundred feet high. The doorway is deeply recessed, with nook shafts, having moulded bases and carved caps, carrying a boldly moulded pointed arch, encircled with dog-tooth ornament. A prominent feature in the front gable is a five-light traceried window. Three small trefoil leaded lights are placed below it. At the angle rise double buttresses with gablet terminations and bold finial. Double light lancet windows, separated by weathered buttresses, are placed in the side wall. A stone eave course, with moulded spout, separates the walling and the roof, the latter being covered with Westmoreland green slates of subdued tint. An open timbered roof, with curved braces resting on stone corbels, spans the interior. Pitch pine sheeting is used for the ceilings and wainscotting.

THE directors of the Kendal Bank for Savings, which is being voluntarily wound up, will have a substantial surplus, which they have decided to apply for the benefit of the town. Part of the money they have decided to expend in the purchase of the Museum building; another part they have applied in the purchase of the Abbot Hall estate, valued at £3,750, as a recreation ground. The directors propose to hand this estate over to the Corporation for public purposes.

ABERDEEN'S NEW TRADES COUNCIL BUILDINGS.

IT is hoped that the Trades Council Buildings will be ready for the opening ceremony by the end of the month. The present premises are on the west side of Belmont Street, and the new buildings are projected behind the present buildings, towards the Denburn Valley. The new buildings are perfectly distinct from the present ones, though intercommunication is provided for, and the main entrance is in Belmont Street adjoining these present premises, which will continue to be used as committee rooms. The dimensions of the buildings are—total length, apart from the 70 feet of entrance corridor, 100 feet; height from the ground level, at the western end, 60 feet to the eaves, and 74 feet to the apex of the roof. The Architectural features of the western elevation are the large window of the main hall and corner turrets. The wall is of hammer-blocked ashlar. The side walls are plain, in pointed ashlar, the expectation being that in due time buildings will be erected in the immediate vicinity which would obscure any exterior embellishment that might be attempted. The main entrance is formed by a gateway with elliptical arch, on which is inscribed the title "Trades Hall," and the date of erection, "1896." This leads into a large tiled corridor, 12 feet wide, and between 60 and 70 feet long, leading directly into the main hall. Half way along the corridor, however, a stairway leads down to the lower floor, where there are no fewer than ten committee rooms, provided on either side of a corridor running longitudinally along the building, and, at the western end of which is a small hall, 42 feet long by 25 feet wide, and 16 feet high, with capacity for a meeting of about 150 people. Here the Trades Council will hold their fortnightly meetings. At the western end of the hall is a platform, with ante-room on each side, and ample lavatory accommodation. Four of the committee rooms are convertible into two by the use of folding partitions. Modern lavatories are provided for this floor near the foot of the staircase, and, like the corridors, are laid with tiles. In a basement floor, below the lower hall, are the furnace room, cellars, and other store-rooms. Leading from the main corridor is the hall, capable of seating an audience of from 1,200 to 1,500. At the eastern end, above the entrance, is a small gallery; and at the opposite end is the platform, raised four feet and a half from the floor. The ceiling is formed by circular coves that rest on a bold cornice that encircles the hall. The coves are divided into oblong panels by moulded beams, while the main ground of the ceiling is divided into three large elliptical panels by the same decorative process. At the platform end the elaboration is still fuller. At each side of the platform rises a lofty pilaster, with richly ornamental cap, carried up to the height of the entablature of the cornice, and between these pilasters is formed, over the front of the platform, a large elliptical arch with moulded architrave and ornamental key-blocks. The buildings will be heated by hot water, and lit throughout with the electric light. The cost of the new buildings will be close on £5,000. Messrs. Ellis and Wilson are the Architects; and the contractors are—Mason work, Charles Gordon; carpenter, John Henderson; slater, James Wilson; plumber, Blaikie and Sons; plasterer, Rodger and Baxter; painter, Donald and Sons; heating apparatus, Robert Tindall.

AMONG the many wonderful things at Blenheim Palace, which the Prince and Princess of Wales will visit at the end of the month, is a magnificent painted ceiling by Reynolds, valued at £40,000, which, oddly enough, had a narrow escape from being cut up into sections. Sir Joshua, wishing to have a reduced copy made, had the painting removed to the studio of one of his pupils, where it was seized for a debt. The pupil confessed his liabilities to Sir Joshua, who interfered just in time to preserve his work from destruction.

A GREAT telescope has just been completed by an Irish firm, that of Sir Howard Grubb, Dublin. It is designed for the special purpose of stellar photography, and it is to be erected in the Greenwich Observatory. The object glass has an aperture of 26 inches, with a focal length of 22 feet 6 inches.

SOCIETY MEETINGS.

Bradford Historical and Antiquarian Society.—At the annual meeting and conversazione of the Members of this Society, which recently took place at the Midland Hotel, Bradford, the result of the election of officers of the Society was announced as follows:—President, Mr. J. Norton Dickons; vice-presidents, Mr. J. Lister, M.A., Mr. J. A. Clapham, and the Rev. Bryan Dale, M.A.; treasurer, Mr. William Glossop; editorial secretary, Mr. C. A. Federer; corresponding secretary, Mr. Thomas Howard; librarian, Mr. Thomas Scorah; members of the Council, Messrs. W. M. Brookes, John Clapham, Thomas Lord, Thomas Mitcheson, Richard Poole, Percival Ross, John J. Stead, Harry Speight, S. E. Wilson, and Butler Wood.—The President, in commencing an inaugural address of much interest, made fitting reference to the death of his predecessor, Mr. T. T. Empsall. He said that the popular conception of an antiquarian society was that of a number of somewhat harmless, bald-headed, and spectacled individuals poring over musty documents, and quarrelling among themselves as to the decipherment and meaning of them. His answer to the enquiry as to the use of a society like that was that it was intended to collect and preserve from destruction the decaying monuments of the past, and to explain customs, usages, and manners whose origin was often so hoary with age that their real meaning and use were in danger of being forgotten. Although Bradford itself could not be regarded as beautiful, yet within ten miles of it scenes of natural beauty not to be surpassed anywhere were to be found. Neither was the district wanting in traces of prehistoric remains, as witness the cup-and-ring marked rocks and stone circles of Rombalds Moor, and in no place in England could ecclesiastical Architecture and the modes of living of the monks of old be studied to greater advantage than in the ruined abbeys of Kirkstall and Bolton. The dales and valleys of the district abounded with examples of domestic Architecture, such as those of Oakwell and Shibden, and whose histories, if they could be recovered and retold, might supply stories of forgotten worthies exceeding in interest the creations of fiction. The President referred with some detail to the wealth of interest to be drawn from peculiarities in the styles of Architecture, as exemplified in the ruins of Rievaulx Abbey and Tanfield Church, and the monuments and stained glass contained in many Parish Churches, and the documentary evidence locked up in many a parish chest. He suggested that the radius of the Society's excursions might with profit be somewhat extended, very little of Yorkshire having as yet been visited.—The report and balance-sheet was adopted.

Liverpool Engineering Society.—At the opening meeting of this Society Mr. S. B. Cottrell, the resident engineer of the Liverpool Overhead Railway, delivered his presidential address. He dealt with the development of railways as a whole, and in particular the question of electricity as applied to traction. Mr. Cottrell pointed out that while not more 67 years had elapsed since the completion of the Liverpool and Manchester Railway, there were now open in various parts of the world upwards of 400,000 miles of railways. Comparing the British and American railway systems, he said—The enormous American system, with over 181,000 miles of line, represented an invested capital of £2,313,000,000, although handling twice the weight of freight of the British railways, carried fewer passengers by 402,000,000 a year.

Society of Engineers.—At a meeting of the Society of Engineers, held at the Royal United Service Institution, Whitehall, on Monday evening last, Mr. S. H. Cox, President, in the Chair, a paper was read by Mr. D. B. Butler, Assoc. M. Inst., C.E., F.C.S., on "The effect of Admixtures of Kentish Ragstone, &c., upon Portland Cement." The author first referred to the geological and chemical nature of Kentish rag, which he defined as a sandy limestone of the Lower Greensand formation, consisting chiefly of carbonate of lime, but containing more or less sandy and clayey matter, its composition varying according to the strata in which it was found. He then proceeded to describe his first series of experiments, which consisted in ascertaining the effect of admixtures of various proportions of finely-ground ragstone, upon the tensile strength of four different Portland cements, both when tested neat, and with three parts of standard sand, the amount of ragstone added varying from 2 to 50 per cent, and the tests extending from seven days to twelve months. The results showed that, although in some instances the neat briquettes were slightly improved by the admixture, the three-to-one sand briquettes invariably showed a diminution in strength, the diminution ranging from 6 to 19 per cent., according to the amount of admixture used. It was further found that the weakening effect of the ragstone was greatly intensified when the briquettes were left entirely in air, and also when gauged with and placed in sea-water. The effect of an admixture of finely-ground sand was also tried in one instance, and the results suggested that further experiments with that substance would be of interest. A further series of experiments with three other cements corroborated the results obtained in the first series, viz.: that the three-to-one sand briquettes were invariably reduced in strength by the ragstone admixture; that an admixture of finely-ground sand with cement was practically of the same value as an admixture of ragstone; and that by leaving the briquettes entirely in air, and also when used with sea-water, the prejudicial effect of the ragstone was much more marked. Tabulated results of the whole of the experiments, which comprised some two thousand briquettes, in addition to chemical analyses and other tests, were given in the appendix. The conclusions the author deduced from them were, that inasmuch as the admixture of Kentish rag reduced the adhesive power or cementitious value of the cement, it was simply a diluent or adulterant; and, as a corollary of these experiments, he further expressed the opinion that any admixture which by itself was inert, unless it was readily soluble in water, or reduced to an absolutely impalpable powder, must diminish the value of the cement, *quâ* cement, and thereby prove a source of weakness. In the latter part of his paper, Mr. Butler discussed some of the methods by which the presence of Kentish rag and other admixtures could be most readily determined. Kentish rag, consisting chiefly of carbonate of lime, effervesced freely upon the addition of dilute hydrochloric acid, and if, therefore, a cement contained any appreciable quantity of ragstone, it would develop similar characteristics, according to the amount of admixture present. As, however, most cements absorb a certain amount of carbonic acid from the atmosphere, some care and experience was necessary to distinguish between the effervescence caused by such absorption and that due to ragstone. After giving some account of the principal chemical and physical peculiarities of cements containing slag and similar substances, the value of a microscopic examination in conjunction with other tests was demonstrated. Several typical examples of cements containing these substances, and also of pure cements, were given by means of micro-photographs and lantern illustrations, which demonstrated very clearly the marked difference, microscopically, between pure cements and those containing admixtures.

WE understand that the Keighley Town Council has abandoned the scheme for widening the main street from Coney Lane to Bridge Street.

AN interesting discovery has been made in the town of Boskoop, in South Holland. When the church tower was being taken down last spring, five little books were found walled in it, and Professor Acquoy, of Leyden, to whom they were sent, has now published an account of them. All of them are religious books, which were in secret use at the *hagepreeken*, or hedge-preachings, at the time of the Spanish persecution, and they must have lain concealed in the tower of Boskoop for over 300 years.

THE Academy is to change hands at the end of this month, and about the middle of November the first number of a new series will appear under the editorship of Mr. Lewis Hind, who was formerly editor of the Pall Mall Budget. The Academy has always been scholarly and decorous, and in these respects it will remain unchanged. But certain more popular features will be introduced; it will be illustrated and enlarged. "John Oliver Hobbes" will furnish contributions to the first and to several succeeding numbers.

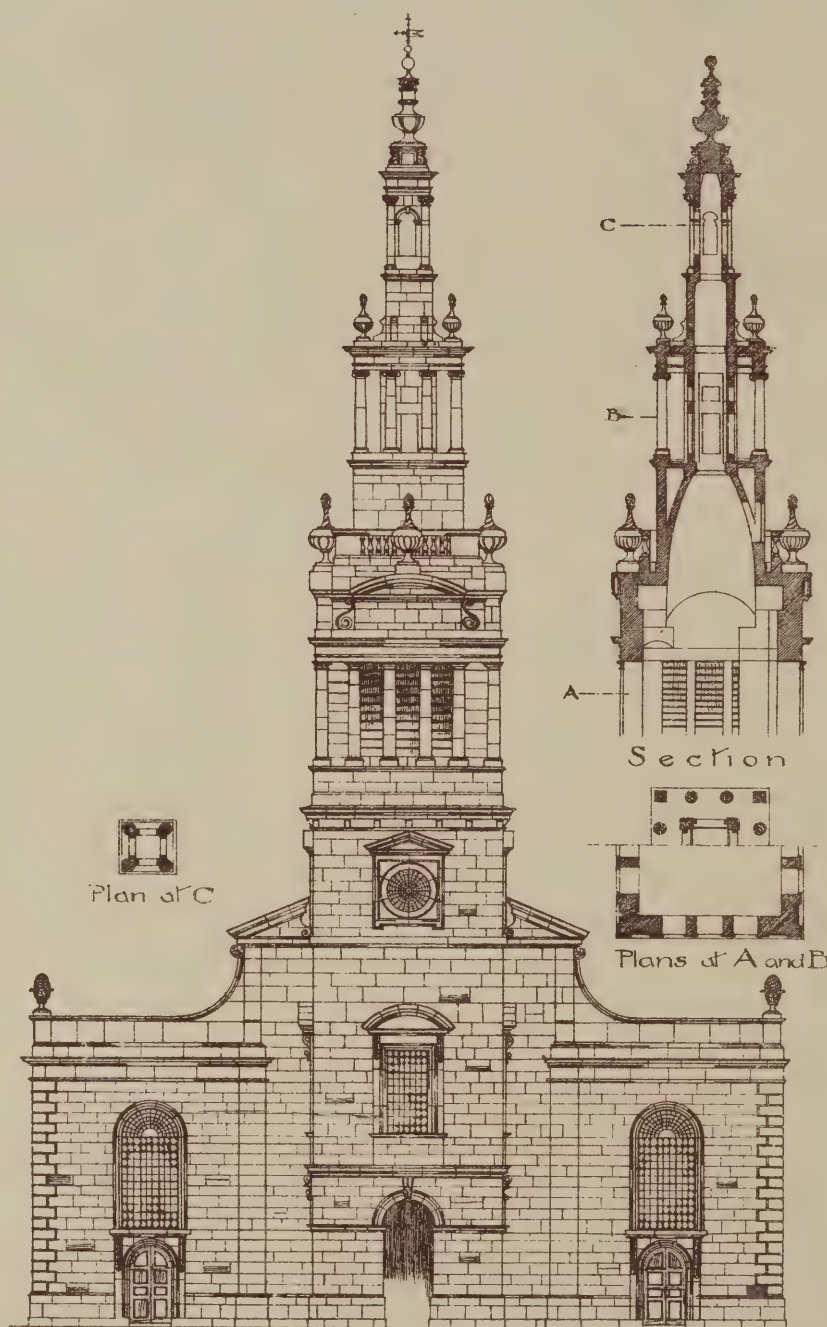
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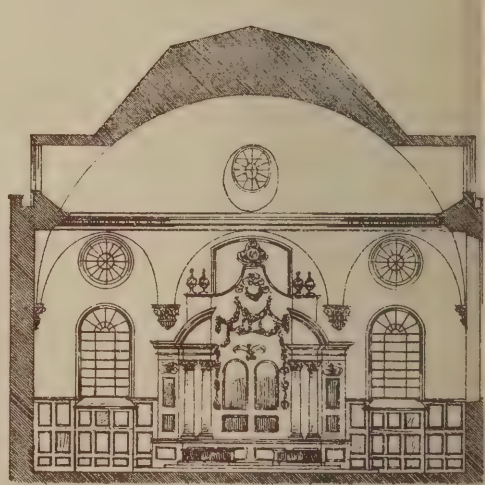
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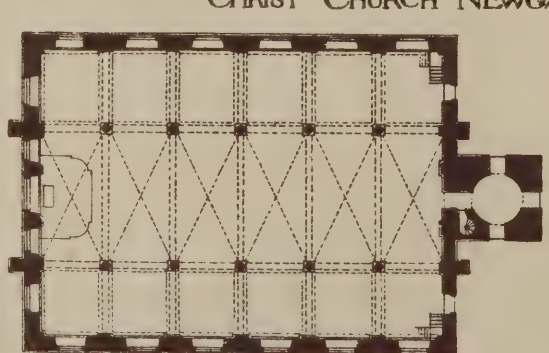




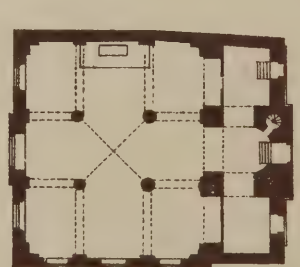
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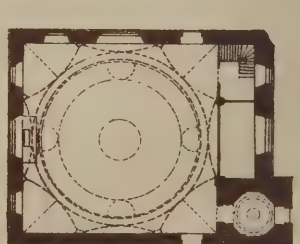
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ST. MARTIN, LUDGATE HILL.
GREEK CROSS PLAN.



ST. MARY ABCHURCH.
CENTRAL AREA PLAN.
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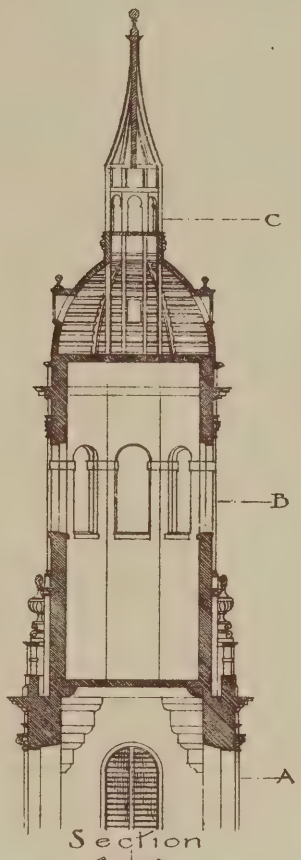
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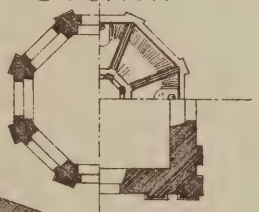


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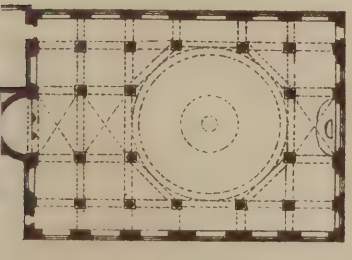


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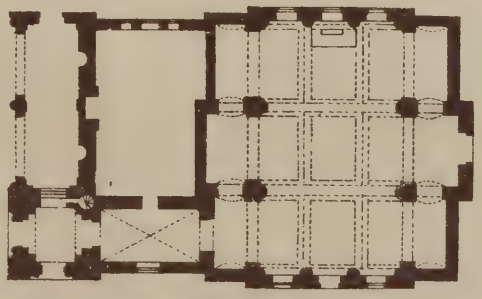


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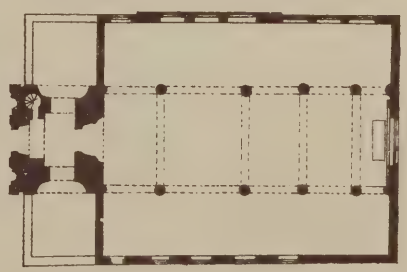
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The New President, Royal Academy.

IF the election of Mr. E. J. Poynter has not evoked great enthusiasm, it has been received by the Artistic public with a sense of relief. Had there been a candidate of pre-eminent claims, the election would have engaged less attention, and, in view of the possibilities, we may congratulate the Academy on its choice of a President who, if not an extraordinary genius, is at least the possessor of a rare conbination of useful and admirable qualities—a man of knowledge, culture, and good taste. He has not the curious eloquence, the cultured cosmopolitanism of Leighton, or the masterful vigour of Millais, but he is not lacking in distinction, and he may be trusted to maintain the dignity of the post. Ex-Slade Professor at University College, Visitor to the National Art Training School at South Kensington, Author of "Lectures on Art," which has been called "the most suggestive and interesting book of the kind," Director of the National Gallery, Mr. Poynter is a learned Painter. A student under Gleyre, in Paris, forty years ago, the new President was an accomplished figure draughtsman, while as yet fine draughtsmanship of the figure was rare in English Art. Archæological accuracy is a point of honour with him, and his first great popular success was achieved almost in spite of himself. He has never been accused of painting "Israel in Egypt" because the public knew the subject and would take it to their homes. He painted it, probably, to please himself and Egyptologists—by a lucky chance the other things were added unto him. "The Catapult" procured his Associateship, and he has had other successes — "Perseus and Andromeda," "Atalanta's Race," "The Meeting of Solomon and the Queen of Sheba"—a most learned effort—to mention the most conspicuous. In a word, Mr. Poynter, over a long series of years, has painted diligently, interestingly, and well. At an early stage in his career, Mr. Poynter showed considerable talent for decorative designing. He painted cartoons for the mosaic of St. George, in the Westminster Palace, designed the Architectural and tile decorations for the grill-room at South Kensington, and painted a fresco at St. Stephen's Church, Dulwich. He designed



GILBERTFIELD CASTLE.

the border to the Queen's letter, and some of his creations decorate the new coins. He has also filled, satisfactorily, several official posts, and proved his possession of a capacity in administration that should serve him well in face of the responsibilites and duties of his Presidency. For years he was Principal of the Art Training School, at Kensington, and in the Directorship of the Museum, his was the influential voice. In 1894, he succeeded Sir Frederick Burton, as Director of the National Gallery, and the signs of his presence, and of his individuality, are not lacking. The son of an Architect, Mr. Poynter may be expected to encourage a more generous sympathy than has hitherto been extended to Architecture. The Academy is called upon to answer for more sins than its own, but it may well be that the wise tolerance of Mr. Poynter will work improvement in the attitude of one branch of Art to the others.

Mr. Thomas Graham Jackson, R.A.

THE election of a new President of the Academy has overshadowed to some extent the raising of Mr. Thomas Graham Jackson — or, as he is familiarly known to most of us, "T. G. Jackson" — to the full degree of a Royal Academician ; but to Architects in general it is of more importance than even the fact of who is, or may become, President. That Architecture should be more fully represented in the Academy, has been the cry of many who do not go as far as some of the would-be revolutionists, and say that Architecture should have a separate Academy of its own. A better representative could not have been chosen, although, perhaps, some will think Sir Arthur Blomfield, being an older man, should perhaps have had the preference. It has been said that the Council had made it known that it hoped and expected that the members would return an Architect, in order to restore the Academic balance ; but this does not count for much, as painters, more than other men, are very clannish, and are not easy to persuade to vote for another profession than their own, especially when so popular an Artist as Mr. B. W. Leader has been kept waiting such a long time for his promotion

Others were also in the list, including Mr. Seymour Lucas, Prof. Aitchison, Mr. Brett, Mr. S. J. Solomon, and Sir Arthur Blomfield. That the election will be widely popular goes without saying. Mr. Jackson is not only an Architect of profound knowledge, but he is also—what in these days is all too rare—an Artist, his profession being to him less a Profession than an Art. He is not only an Artist, but an Artist of great individuality and pure taste, whose sympathy for the Arts and Crafts has often been very practically shown. An Oxford man, a Master of Arts, a Fellow of the Society of Antiquaries, and an Honorary Fellow of Wadham College, Mr. Jackson has stamped Oxford with his name. When it was decided to build new Examination Schools on the site of the old Angel Hotel, in High Street, his designs were unanimously accepted over all competitors, and the new buildings at Trinity College, which form so notable a feature in Broad Street, were also from his designs. That he possesses the entire confidence of the University authorities has been shown on many occasions, especially in reference to the repairs of St. Mary's. Mr. Jackson is fifty years of age, and his influence in the Academy will, we hope, for many years, be of great assistance in supporting the more modern views with respect to Architecture, which are at last being more generally recognised. Architecture is the mother of all Art, and yet how disdainfully is she treated by her children. It is to such men as Mr. Jackson that we look to raise her to that high pedestal which is her right.

ST. HELEN'S NEW TECHNICAL SCHOOLS AND LIBRARY.

THE new Technical Schools and Central Free Library, erected at a cost of nearly £30,000, and presented to the town by Colonel Gamble, C.B., have been opened. The new building has been erected at the corner of Corporation Street and Hardshaw Street, almost opposite to the Town Hall. The site has the advantage of three frontages, namely, to Corporation Street, Hardshaw Street, and Bickerstaffe Street. Externally the building is faced with red terra-cotta and red-pressed bricks upon a sub-base of fine granite to the level of the ground floor. The whole of the ground floor, with the exception of the offices provided for the use of the director of technical education, has been devoted to the Free Library. The hall, in which is placed the borrowers' counter, measures 55 ft. by 24 ft. A private room for the librarian is screened off in a corner of the department, and lavatory accommodation for the staff is also provided. The whole of the frontage of the building to Bickerstaffe Street is occupied by the general reading room, which is 114 ft. long and 32 ft. wide, and fitted with continuous newspaper stands round the end fronting Hardshaw Street, in addition to which are three double stands, each 16 ft. long. The remainder of the room is fitted with flat-topped reading tables and stuffed benches, finished in morocco leather. The reference reading room, 50 ft. by 32 ft., has a counter running round two sides exactly similar in design to that in the borrowers' department, and behind it are placed the racks for the reference books. This department is furnished with polished oak tables and leather-covered benches to match those in the reading room. A reading room for boys, 32 ft. by 21 ft., and a ladies' room, 32 ft. by 13 ft., with separate lavatory accommodation in the latter, are also provided. A spacious store-room has been made in the basement, with direct access from Bickerstaffe Street. The basement is devoted to engineering, plumbing, and other manual departments, including an engineering shop, 62 ft. by 32 ft., fitted with the most complete modern machinery, so that students may go through the whole course, from pattern-making to finishing and fitting. The metallurgical laboratory is also most complete in the matter of fittings of the most recently approved design. The rear of the basement is taken up with the engine and dynamo house in connection with the heating and ventilating apparatus, forming an adjunct to the engineering department. The remaining space of the basement is devoted to the plumbing and building class-rooms, teachers' store-rooms and lavatories, and a covered cartway from Bickerstaffe Street, through which all building materials, library, and other stores can be taken into the building. On the first floor of the building fronting Bickerstaffe Street is placed the physics laboratory, 56 ft. by 25 ft., with class-rooms, and a lecture theatre capable of accommodating 90 students. Immediately behind the physics preparation room, and entered from the laboratory, is a "dark" room for photographic and other purposes. The wing of the building in Corporation Street on this floor embraces a students' common room, two large class-rooms, and the geometrical drawing room, with cookery and laundry demonstration rooms at the end of the corridor. Teachers' rooms, ladies' cloak room and lavatory are placed on either side of the central staircase, and a striking feature of the first floor, as well as of the floor above, is a continuous arcade, within which it is intended to retain for exhibition the prize specimens of the students, and as a museum for other articles of interest relating to the work carried out in the institute. The second floor is entirely devoted to the chemical and Art departments. The Art department, including the modelling rooms, the advanced Art rooms and the Art-master's rooms, are placed in the wing fronting Corporation Street, the whole being exceptionally well lighted and adapted to the various branches of Art to be taught therein. The heating and ventilation of the building have been arranged by Messrs. Blackman, of London and Manchester. The whole of the work has been carried out from plans prepared by Messrs. Briggs and Wolstenholme, of Blackburn and Liverpool, by Messrs. Neill and Sons, of Manchester.

KEYSTONES.

THERE is a scheme on foot to furnish electric power to the City of Mexico from peat beds nine miles distant.

IT is stated that over 200 Architects are competing in design for the new College of Technical Education at Sunderland.

AT Broadcroft the new Corporation gasworks, just erected by Rothsay Town Council, have been formally opened. The works, which have cost £12,000, have been rendered necessary by the expansion of the town, the need for the erection of sulphate of ammonia plant, and for providing motive power for an installation of the electric light shortly to be gone on with.

A WORKMAN made a discovery of spade-ace guineas in the course of digging out the foundation of some houses at Muswell Hill, a few days ago. A large number of villa residences are being erected, and in digging in comparatively an open field almost adjoining the Alexandra Park Estate, an earthenware jar was found, which contained some 120 spade-ace guineas in an excellent state of preservation. The discovery was first kept a secret, but the "find" has by some means leaked out, with the result that the police authorities have obtained possession of the guineas pending inquiry in the matter.

DURING the recent vacation the hall of the Cordwainers' Company, in Cannon Street, has been re-decorated throughout. The former decoration had been in existence for many years, and the introduction of the electric light into the premises in the spring of this year necessarily defaced certain parts. The plaster decorations of the hall are of the "Adams" style, and an Anaglypta dado has now been fitted round the room, serving as a suitable base for the upper part. Two ornamental mirrors, designed strictly in the same style, have been fixed on the north wall, and give a pleasing effect when entering the hall from the staircase. The general colour of the walls is buff above the brown dado, and the ornamental plaster frieze is finished in a pleasing shade of green with the ornamentation picked out in white. The work has been executed by Messrs. Campbell, Smith, and Co., of Newman Street, Oxford Street, and the ornamental mirrors were supplied by Messrs. Jackson and Sons, of Rathbone Place. The decorations were designed by the company's surveyor, Mr. Howard Chatfeild Clarke, of Bishopsgate Street Within, and have been carried out under his personal superintendence.

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THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

KENT AND SUSSEX COTTAGES AND ROOFS.

Written and illustrated by FRANK LISHMAN, A.R.I.B.A.

(*Concluded.*)

THERE is, over a cottage hard by the Church, in Cowden, a singularly happy piece of roofing, whereby a workshop adjoining is gathered under the same roof as the cottage itself; surely expressive of the influence of the home over labour and speaking better things than the living wage! When at Cowden it is but a few steps southward across the borders of Kent and into Sussex. A walk of three or four miles through wood and field all the way brings us into the village of Hartfield. Every house here, from the first with its long sloping roof, growing as it were almost out of the ground, to the last, is an excellent example of the perfect adaptation to site and surroundings.

The half-timbered house opposite the "De la Ware Arms," is a good instance of the exclusive use of vertical timbering; satisfactory as this is however, the long hips of main roof impart a heavy and flat appearance to the house as a whole, although the roofing over the brick oven and the fine stack from this latter do much to redeem it. The gable measures 15 ft. wide and about 14 ft. to the eaves. The oak studs average 6 in. wide and 8 in. apart. The plaster is finished with a pebble dash, which is a less common treatment than with a smooth face only. There is no barge board to gable, an ordinary roofing spar projecting 3 in. in front of studs, being substituted with the tiles overhanging 2 in. in front of spar. The Lych-gate (A.D. 1520) at Hartfield is worthy of notice. The gate, proper, is under a portion of the cottage shown in sketch, and is somewhat after the manner of the Penshurst Lych-gate. This cottage, as sketched from the south-east, shows so simple and effective a piece of roofing, that it might well be followed in modern cottage building. The surface of the plaster on the north side and in the gateway is scored in a rough diaper pattern, the indents being $\frac{1}{8}$ in. deep, the figures are irregularly and carelessly marked, but, from a little distance, they add to the texture of, and give an amount of interest to, the otherwise smooth plaster, quite out of proportion to the small amount of labour and skill expended upon it.

At Leigh Green, near the south entrance to Buckhurst Park, Withyham, is a more elaborate example of half-timber work than is usually found in Kent or Sussex, for not only is the curved diamond pattern used under the windows, as at the Middle House, Mayfield (though there to a greater extent), but the almost invariable treatment of the gable by vertical studs, and vertical studs only, is here departed from and diagonal studs introduced. The effect is satisfactory, but were the barge board continued on the one side down to the foot of the long slope of roof, and the diagonal studs repeated under it as in the upper part of the gable and two or three more quarterings inserted in the remaining oblong plaster panel, we should find a more satisfactory house end. The long line of roof would also "tell" better than under the existing arrangement. Whether the nearer chimney would then look too high for its position is doubtful, but it does so appear at present. The gable, proper, measures 16 ft. 6 in., the total across the house end being 27 ft. The manner in which the steep fall of the ground towards the back of the house is made to serve as a means of obtaining a good roof effect, is another of the many instances where the formation of the site influences the lines of the roof.

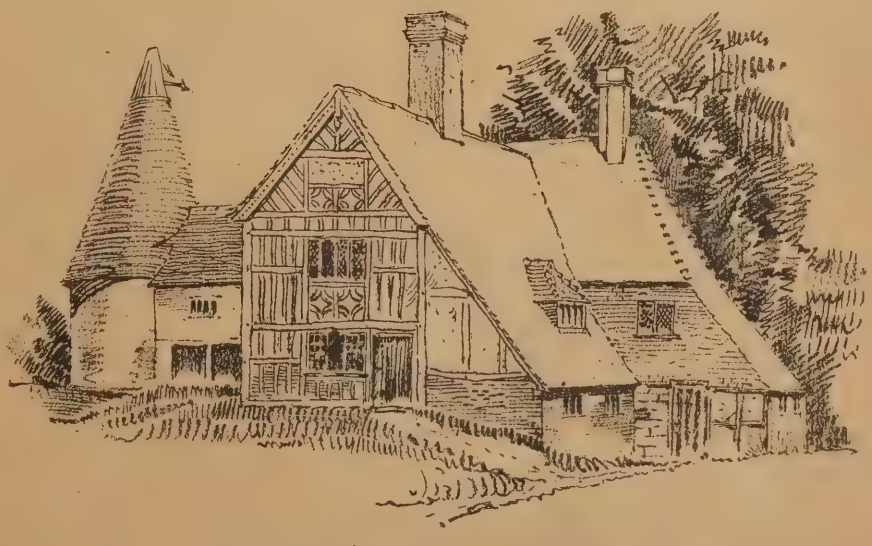
More attention has been devoted in this article to the roofs of the buildings that have come under our notice, as the principles involved are more applicable to present-day conditions of building, than is the case with other features. For instance, Parish Councils would be sure to object to living rooms measuring only 7 feet from floor to ceiling, yet this is a common enough height in these old cottages. Neither would the relative position of ceiling line and window head, in many instances, meet with their approval any more than it would appeal to the client's idea of comfort. In the upper floor of the "Castle Inn," at Chiddingstone, for instance, it is necessary to seat oneself in order that the window head may be brought to a level with the eye.

It appears to the author that, under ordinary circumstances, given a well-designed roof, the success of the whole is practically ensured. Let the exigencies of the site and its surroundings, therefore, be well considered—let us show our appreciation of a fine tree or a group of trees for instance—and let us take advantage of any rise or fall of the ground. Were these points attended to more by the Architect and the Estate Agent, it would not be resolved that the first essential in the "Development" of an "Eligible Suburban Building Estate" is the razing of fine avenues of chestnut or elm to the ground—nor would it be necessary for the local branch of this, that, or the other Banking Company to be open to receive subscriptions towards the £1,000 necessary to save the adjoining grove from the inroads of the jerry builder.





COTTAGE IN HARTFIELD, SUSSEX.



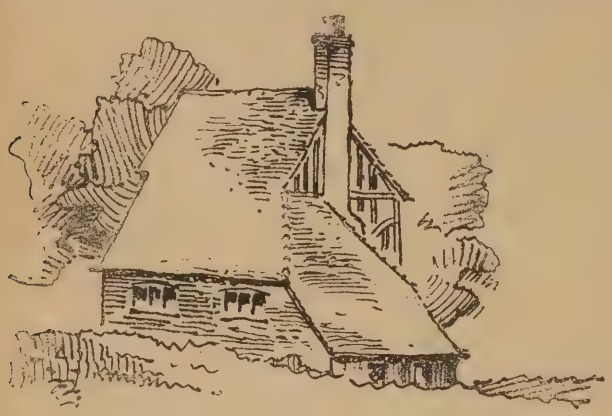
COTTAGE AND OAST-HOUSE, LEIGH GREEN, SUSSEX.

PROFESSOR AITCHISON AT THE INSTITUTE.

THE PRESIDENTIAL ADDRESS.

(*Concluded.*)

IF this ignorance of the value of Architectural monuments is not dispelled, and the greed of gold continues, those who live long may witness the conversion of St. Paul's Cathedral and Westminster Abbey into stations for railway junc-



LYCH-GATE HOUSE, HARTFIELD, SUSSEX.

tions. A genuine Architectural style is evolved in this way: from the shapes and sizes buildings take to suit the wants for which they are built; from the exigencies of the materials used; from the shape of the roofs, to protect the inside from rain, snow, or heat; from the size and grouping of the windows, according to the needs of the chambers and the intensity or dimness of the light; from the uses of the doors; from the external provisions for shade or shelter; from the original type from which the building was taken; from the constructive skill of the Architect; from the æsthetic sensibility of the nation, and the particular direction it takes; from the ability of the Architect to evoke the emotions proper to the building; and from the amount of excellence arrived at by the sculptors and painters; for it is obvious that if these Arts coexist in one building, each Art must be of equal excellence to make a consistent and effective whole. Architectural styles are not the creation of a day nor of a man, they are the alterations of the existing forms and arrangements to meet the new uses and the new tastes of the day; when the new generation is superior to the last, then Architecture improves, when it is inferior, Architecture degrades. The general taste of former people mostly persisted in the same line for centuries; we see this in Greek Architecture, that rapidly arrived at perfection after the successful overthrow of the Persians, and gradually declined till Athens fell under the sway of the barbarous Macedonians. Architecture is a

PROGRESSIVE ART,

but its progress is not always continuous, as nations unfortunately do not always improve, nor is their love constant to the same Fine Art. As long as Architecture is alive some change is of its very essence, as each generation has not exactly the same wants and tastes as the one immediately preceding it; hence we see the foolishness of substituting antiquarianism for Architecture, fixedness being substituted for natural motion, while a small knot of antiquarians settle what deceased Architecture is to be chosen as the model. Once it was Roman work, then Greek, and since it has been Gothic, as if the wants, the knowledge, the skill, and the taste of this end of the 19th century exactly resembled that of the Christian era, of 450 B.C., or that of the 13th century. Deceased Architecture is the Architect's lesson-book, as history is the statesman's, and poetry the poet's. Pleasant as it is to dwell on the glories and delights of deceased Architecture, one cannot confine oneself to it when speaking to an Institution like this, formed for the furtherance of the Art. It is doubtful if Architecture was ever in its present condition, for there has mostly been a tradition or a belief, and never before has a knowledge of many deceased styles been so complete. With two deceased styles at least, Renaissance and Gothic, a large proportion of our Architects are so familiar that they could build a paraphrase in either that might almost deceive a Gothic Architect of any period, or an Italian of the late Renaissance. This familiarity must to some extent tinge, if not modify, modern English work, and there is, as well, some superficial acquaintance with every style of importance that the world has known. Will a new style be developed by our successors as strikingly different from past styles as Saracenic is to Byzantine, or Gothic to Romanesque? We cannot help noticing that there are at present plenty of instances of the wildest originality, which have disregarded every Architectural canon and every dictate of common sense owing to a want of proper direction and training being given to the Architects; but this complete Architectural liberty, although it has drawbacks, has certainly given us some very charming work; and I think few would desire to go back to those dingy streets of brick, where each house was destitute of proportion, of mouldings, of features, or of any character, emotional or otherwise, but was a plain brick box with holes in it. Some Architects regret that

ARCHITECTURE IS NOT NOW A PURE FINE ART:

why, I cannot tell, for its aim is surely the highest of any of the Fine Arts—that of creating a perfect organism like one of Nature's, where every want is met, where the building tells us for what particular use it was made, and where the Sculptor, the Painter, and the ornamentalist have combined with the Architect to make the building tell its purpose most completely, and evoke the emotions proper to its use. Whatever other aims the Institute may have, the thing that is absolutely essential to its existence is the advancement of civil Architecture. Architecture comprises three main branches: convenient and æsthetic planning, sound and daring construction, and the investing of the whole structure with such forms as excite the proper emotions. The powers of mind necessary to fulfil these requirements with any approach to perfection, are seldom found to exist in the same person; hence the extreme rarity of great Architects. I hope that our glorious Art may in the future have still greater triumphs than it has had in the past; for, looking at our wider knowledge, our wonderful appliances, our new materials, our acquaintance with the powers of Nature, the greatness of our Empire and its position in the world, it may well be expected, if we and our successors retain our self-denying and single-eyed devotion to our Art. I hope that the nation will in the future take a deeper interest in Architecture, feel prouder of its triumphs, and understand what it does for the country; and that the Architects, casting aside archæology, except for study, may evolve a phase of Art which fulfils the tastes and aspirations of the nation as completely as the Greek temples or the Cathedrals of the Middle Ages once did.

At the conclusion of the President's address, Mr. F.C. Penrose, the late President, having proposed a short vote of thanks, Mr. D. Alex. Murray said that "The burning question of the day is:—What is to be the outcome of all our learning? For as the President pointed out, there has never been a period in the world's history when the Architect had such a rich store of accumulated knowledge at his command as he has at present, that our intimate acquaintance with Etrurian, Greek, Syrian, and Egyptian Architecture should lead to imitation, is obvious enough. The Saracens had abundant knowledge of the great things which had been done before their time, but this did not prevent them evolving a style of their own. The President further said that one of the earliest of the great Greek Architects had presumably travelled in Assyria and Persia, but this did not lead him to copy what he had seen when he arrived home again, any more than to introduce the Persian language in his country. The modern tendency to raze to the ground buildings that are dear to the friend of Art, as our President truly said, merely in order to erect 'shops in their stead, so as to obtain more rates and taxes,' is greatly to be deplored."

Colonel Lennox Prendergast also spoke.

Professor Aitchison, in proposing a resolution of condolence to the relatives of the late Secretary, Mr. White, said:—"It is my mournful duty to inform you that our late President, Mr. W. Henry White, expired on the 20th of last month. I may say that to this Institute his loss is well nigh irreparable. You will pardon me for saying irreparable, for, at the present moment, I could really name no one who could adequately replace him and who would exhibit such marked devotion to the Institute as our late Secretary has done. His post was to him not only his occupation, but to him it was, so to speak, his wife, his family and his home. He was so devoted to this Institute that I am very much afraid his untimely end was in a large measure brought about through overwork and the consequent want of exercise. His qualities for the office of Secretary were perhaps not unusual, but extremely uncommon. He was possessed of great sagacity, excellent judgment, great business ability, and one of his chief virtues was his extreme punctuality. Such a combination of valuable qualifications are not often found united in one and the same person. And when you realise all the duties which the Secretary has to perform you will find that he has his work well cut out for him, and that his duties necessitate that he must throw his whole capacity and whole energy into it. The amount of correspondence he had to get through from day to day was simply appalling. I may say that Mr. White brought a great many qualifications that were necessary to such an Institution as this. He was at one time a successful practising Architect in Paris, and afterwards in India, and was an able contributor to all the professional papers, and owing to his having been an Architect in practice in France he was not only a first-class French scholar, and read, wrote and spoke French almost like a Frenchman, but his admiration for the excellent methods of the French for teaching the young aspirants for the Architectural profession of the artistic feeling which is such a striking characteristic of the French temperament, was in every way heartfelt and sincere. I am sure that no one who knew him intimately in his professional capacity, could fail to share his admiration of the genius of the French in Architecture. His deep insight into the French system of teaching, and French life generally, gave him a peculiar power, which I hope we shall find in one of his successors, especially his knowledge of French, which must always be a tie between two nations, for nearly every other nation speaks French as well as its



COTTAGE, NEAR W. PECKHAM, KENT.

own language, and his ability in this direction has endeared him to a great many Architects on the other side of the Channel. His devotion to the interests of the Institute knew no bounds, and he had the perfection of English Architecture dearly at heart, and he did all that was in his power to raise the status of the Architectural profession in this country. I need not say what a loss his death is to me alone, not only in his capacity as Secretary,



THE CASTLE INN, CHIDDINGSTONE.

but also as a personal friend. Many a time he has been standing in our midst, urging all the advantages he had seen in the French system, and, I hope, not without effect. I saw him not many days before his death, and then one of his principal thoughts was to recommend to the consideration of all the members of the Institute the excellent way in which all the people in the office had seconded his efforts. To show how much he had the welfare of the Institute at heart, he left his Architectural works and the whole of his drawings to the Institute. A letter of condolence has already been sent to his surviving relatives, and I now propose a vote of sympathy herewith to his relations for the great loss they have sustained." The Resolution was unanimously carried. Amongst those present were Mr. W. B. Richmond, R.A.; Prof. Robert Kerr, Prof. Tavenor Perry, T. Roger Smith, John Medland, (Manchester), James Cape, and J. Macvicar Anderson.

AT an adjourned inquiry at Crediton, respecting the claim of the silver coins found in Crediton Church on the 15th of October, the court found that it was Treasure Trove and that it belonged to the Crown. There were four claimants — the Lord of the Manor (General Sir Redvers Buller), the Church Governors, the person who found the coins, and the Treasury. The coins were produced and were all silver, in number over a thousand.

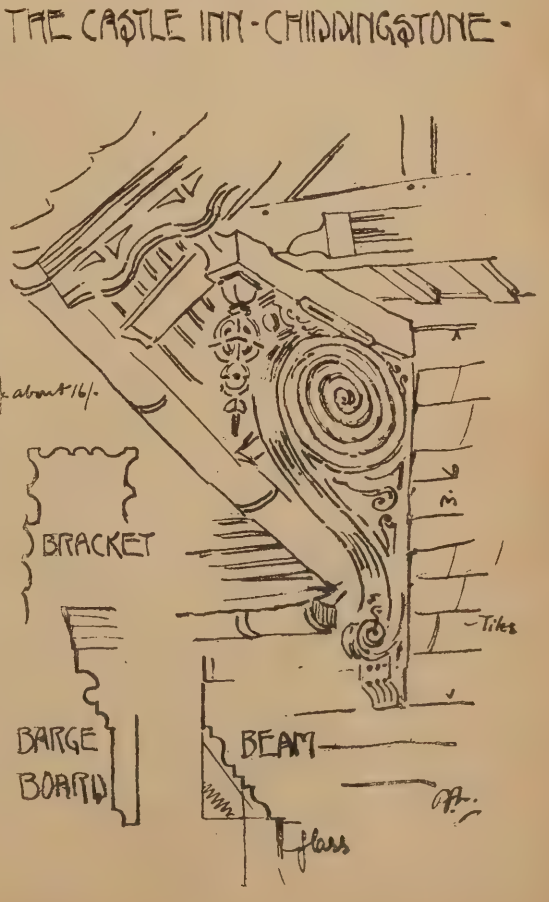
AT a recent meeting of the Salford Town Council, a long discussion followed the presentation of a report by the General Purposes Committee as to erecting a grain silo and warehouse on the banks of the Ship Canal, and which recommended the Council to adopt such a scheme, and obtain Parliamentary powers for that purpose. It was stated that the borrowing of such a sum would mean the payment of £6,000 or £7,000 a year interest by the Corporation, but against the expenditure the carrying out of the scheme would eventually bring great benefit to the borough.

LORD GRIMTHORPE ON OBSCURE MONUMENTS.

IN a letter to the Times, Lord Grimthorpe says: Your paragraph about the Queen's statue at the Royal Exchange, placed under a supply of rusty water, tempts me to say a word about some other ingenious dispositions of marble statues, if one may use the word for recumbent images. The two most recent instances that I have noticed are, first, Bishop Claughton's, in St. Albans Cathedral. The statue is thought by everybody very like in face, by Forsyth, but Sir A. Blomfield has thought fit to lay it on a bed so high that it would require a giant to look down on the face, or else a chair to stand on; and all for nothing, except to display a pedestal of coloured bits of marble, as incongruous as possible with the rude and massive Architecture of the surrounding oldest parts of that oldest of our great Churches. The other is worse, of a greater man in a still greater Church — viz., Archbishop Thomson's monument at York, of whose difficult face this, by Thornycroft, is the only representation by any Artist under the sun that I ever thought satisfactory, though there are sundry good ones by the sun. But the highest Architectural genius has been displayed in spoiling it. Not only is it set too high, worse than Bishop Claughton's, but close against a wall, and besides that obstructed at the top and bottom by a kind of stone framework, carrying a heavy and overdone canopy more conspicuous than the monument itself; so that it is impossible for any but the aforesaid giant, shoving his head in under the canopy, to see anything but a partial view of the archiepiscopal side-face, which was not his best. And though all that was possible has been sacrificed to those Architectural subsidiaries, the Architect never perceived in time that he was setting his frame against some of the ancient shafts which had been pushed out of upright ages ago by the thrust of the tower arches, as everybody knew, all over the transept sides. Consequently, there is an increasing gap all the way up, which there would not have been if the unnecessary upright frame or jambs had been omitted and the canopy—or a better one—made to come out of the wall, as they more generally did in old times. Another remark, which has probably been made a thousand times already by visitors, is that the inscriptions on all these tombs are illegible to everybody who is not up to the trick of reading things so written; and even to them they are made as obscure as possible, with the sole exception of "Tom Musgrave's," as we always called him at Cambridge, and whose common sense seems to have survived round his tomb in a good, square-cut, black inscription, which he who runs may read. The only really visible image of all those in the transepts is Dean Duncombe's, who lies low, and consequently with his face in sight of not only ordinary mortals, but of half-a-dozen marble dolls who stand or kneel at his head and feet worshipping him. As a specimen of the contrary kind, Bishop Selwyn's beautiful figure in alabaster, at Lichfield, lies under one of the old recessed arches, so that everybody can see and admire it—a striking contrast to that portentous abomination, done by I don't know whom, to perpetuate the memory of Samuel Wilberforce, at Winchester.

RESTORATION OF AN OLD NORMAN CHURCH.

ALTHOUGH 800 years have elapsed since Compton Greenfield Church had its origin, parts of the ancient Architecture remain, the principal feature being the fine Norman doorway from the south porch to the Church. The lines of decorative work bearing testimony to the skill of 12th-century sculptors are unusually effective, and the masonry has resisted well the ravages of time. The bold Norman carving had long been thickly covered by a creamy wash, and a year or two ago this was carefully removed and the surface of the stone laid bare. Similar treatment was found necessary on the interior of the Church in the recently completed scheme, and the masonry of several good arches has thus been made visible. The dark roof timbers have recently been oiled; the pews reduced in height, painted, and varnished; the old board floor taken away and replaced by wood blocks, on a concrete foundation. Pennant slabs have been used to pave the pathway up the nave; the chancel floor is of Pennant and Portland stones arranged in design, and in front of the communion table the paving is of black and white marble, fixed so as to form an agreeable pattern. A great improvement has been effected in the chancel by the removal of the two square, old-fashioned pews formerly standing there. In their place choir stalls and desks of carved oak have been placed on the south side, and on the north an organ chamber has been built out from the Church, with communication to the chancel by a large pointed arch. There the organ has been placed, and, in order to improve the communication of sound, the west wall of the chancel has been pierced by a small rounded arch. It may be added that the lower part of the old chancel arch is Norman, but the arch itself is of 14th-century design. The ivy-clad tower is also of the latter age, these ancient portions having been retained by those who rebuilt the Church in 1852. When the organ was removed from beneath the tower to its new chamber a small western doorway was discovered, the aperture being walled up. It has been restored to its original purpose, and an oak door placed in it. The ground floor of the tower has been formed into a vestry. Hot-water heating apparatus has been fitted for warming the Church, and lamps suspended. Mr. Ponting, the Diocesan Architect, had charge of the alterations, and they were carried out by Mr. J. Perkins, of Redland.



Sir Christopher Wren and his Work.

AN HISTORICAL AND CRITICAL SKETCH.

By ARTHUR STRATTON.

Read before the Liverpool Architectural Society, and published exclusively by the Builders' Journal.

PART I.—THE LIFE OF WREN.

THE early years of the life of Christopher Wren always seem enshrouded in a certain amount of mystery to an Architect, because they were devoted to a study apparently so opposite to that with which hi name is now universally associated. He was about twenty years of age when Inigo Jones, his great forerunner, died. Inigo Jones fell upon evil times; frustrated, it would seem, at every move, his masterly designs were for the most part but idle dreams, doomed to be known to posterity only as great possibilities. He played his part nevertheless, and was still playing his last act may be, when one appeared on the scene who was destined to carry on his work, and to carry it on with such brilliancy that all the world should shade their eyes, and yet be dazzled by the mere reflection which should suffice to keep his own name brightfor ever. It is consoling to think that Inigo Jones may have known some such thoughts, and have seen such a man in young Wren, whose hand, no doubt, he more than once grasped, and, perhaps, whose words of admiration for his few completed works were fondly remembered in his last unhappy hours.

We well might picture Wren in those days to have been an enthusiast, devoted solely to the study of Architecture; but, as a matter of fact, he was known rather as a young man possessing altogether exceptional powers of acquisition, interested in anything intellectual, but especially addicted, not to the Fine Arts at all, but to the higher branches of Science. Born in the quiet country vicarage of Knowle, in Wiltshire, on October 20th, 1632, he early exhibited great mental powers, apparently to the detriment of his physical strength, for we find that his father, Dean Wren, a man of high culture and understanding, deemed it advisable to supplement such attention as he could himself bestow upon his promising offspring by the services of a private tutor at home. However, in 1646, when in the fourteenth year of his age, he was at Wadham College, Oxford, astonishing everyone there with his bright intelligence and persistent study, having at that early age not only laid the foundation for a sound classical education, but also exhibited a strong bent for the experimental philosophy of the "New Learning."

His University career was distinguished by one succession of marked achievements, and he proceeded to the degree of M.A. in 1653, in which year he was also elected a Fellow of All Souls' College. At this time, and for some years subsequently, we know him to have been deep in scientific research, writing learned tracts on the "Theory and Hypothesis of Comets," and patenting inventions of all sorts, from diplographic pens and "Instruments of use in Gnomonicks to new designs tending to strength, convenience, and beauty in Building," whilst the discovery of mezzotint engraving should probably be attributed to him, rather than to Prince Rupert. Nothing seemed to dismay him, and before many years had passed away, "this miracle of a youth," as Evelyn called him in his Diary of 1654, was known in scientific circles all over Europe. At home the highest honour were conferred upon him; he was Savilian Professor of Astronomy at Gresham College in 1657, when only twenty-five years of age, and Professor of Astronomy in the University of Oxford in 1660. In 1673, owing to pressure of other work, he was compelled to resign his Professorship, but he long maintained his connection with the Royal Society, which had received its charter in 1662. His name as one of the originators occurs again and again in the proceedings of the Society, along with those of all the leading men of Science of the day, to say nothing of the names of King Charles himself, the Duke of York, and Prince Rupert.

In 1680, and again in 1681, he was elected to the Presidency, and we marvel that he found time to carry through his multifarious duties in that capacity to the satisfaction of all, and apparently not to the detriment of other occupations which were rapidly increasing around him. Having hastily followed him thus far, to the zenith of a scientific career, we must retrace our steps to glance at events which had been taking place outside the Universities, events which in course of time were to react upon him, and to alter the course of his whole life to such an extent that it might seem that so far he had missed his true calling in life, if such a master mind can be said to be restricted to any one sphere alone.

All through the earlier years of his college life the country had been convulsed by civil wars; on one occasion at least it is recorded that the disorder actually affected his own movements, and some time in 1658, the Professors of Gresham College were driven from their class-rooms and the place was garrisoned by the rebels. Amidst one long succession of tumultuous scenes and vicious uproar was his character firmly moulded. During these stirring times for the Church and State alike, his eyes must many a time have turned towards the Tower, where, for eighteen weary years, lay his uncle, Matthew Wren, Bishop of Ely, who was cast there for his supposed Popish tendencies; a victim along with Archbishop Laud in the wholesale demolition which was brought about by the temporary ascendency of Calvinistic principles in the land. The Church was no less corrupt than the State, and as an outward sign of its inward corruption, the erection of religious houses was not only stopped but those which already stood were subjected to every infamy of abuse and disuse. Little reverence was shown to the great Cathedral of St. Paul, which was already tottering, whilst the work of Inigo Jones, as being connected more or less with Laud, was undisguisedly hated by the Puritans. The peaceful Arts could hardly flourish at a time when bands of marauders scoured the country wishing to destroy anything that could in any way be construed into an embodiment of the Papish religion: no matter how beautiful its profanity was only enhanced thereby.

The Restoration alone could produce order, and the people, weary of self-rule, or no rule, and smarting under sores inflicted by themselves, gladly welcomed it. It was well for Art, that in Charles, at such a time, she found a patron. His long exile had not been spent in vain, and he came back alive to her claims and to the disgraces which had been inflicted upon the religious houses of his country. St. Paul's, as it then appeared, stung him to the quick, and one of his first acts was to appoint Wren, who was most likely well known as an amateur Architect, assistant to Sir John Denham, the Surveyor-General, a man whose name is now rather associated with poetry in words than with poetry in stone. Thus early, in 1661, was Wren connected which the Metropolitan Cathedral, partly no doubt owing to the influence of John Evelyn. Charles, who had received the fortress of Tangiers as part of the dower of Queen Catherine, wanted Wren, as one of the best geometricians of the day, to leave St. Paul's to Denham, and to go himself to Tangiers to superintend extensive works there to the Mole and harbour. Wren, however, excused himself, and we rejoice that he did not throw away some of the best years of his life and possibly his life itself, for a mere caprice of his whimsical King. The works were eventually abandoned, and a few years before the close of the King's reign the whole place was given over, and the garrison brought back to England.

In spite of his high position in the scientific world and the incessant demand upon his time which it occasioned, Wren now began seriously to turn his thoughts to matters Architectural. That he had always had an inclination that way, and that he was far from ignorant of its principles from his boyhood, no one will doubt. We are told that his father, the Dean of Windsor, was not only a good mathematician, but that his knowledge of the Art of Architecture was by no means inconsiderable. He produced many designs, but it is now very difficult to prove that any were ever executed. His son would naturally have seen them, and, whether good or bad, they most likely whetted his appetite. In 1661, when he probably had no idea of the future which was before him, he suggested "Designs in Architecture" as part of his contribution towards a royal entertainment on the occasion of the King's visit to Oxford. He was before long, however, to have an opportunity of shewing that his knowledge was not merely superficial. His uncle, the Bishop, who had been released from the Tower at the Restoration, bethought him to make some thank-offering, and to benefit his old College at the same time, by giving it a Chapel. He consulted his nephew and found him so ready to further the project, that the old man lived to worship in the Chapel of Pembroke Hall, Cambridge, and to know that he had paved the way for the young Architect's future career in giving him his first commission. The first stone was laid on May 13th, 1663, which was about four years prior to the death of his patron, and five years subsequent to the death of his father.

Further work at Oxford and Cambridge soon followed. It would be interesting to learn how his designs, strongly imbued with the Palladian spirit, as interpreted to him through Inigo Jones, were regarded by the people at large at these centres of learning. At Oxford, Gothic traditions which had lingered there, owing to Laud's influence, later than anywhere else in England, had produced the wonderful Christ Church Staircase as late as 1640, and may still have been persistent in Wren's college days; but in other parts, in the later years of the century, workmen were beginning to have a good knowledge of classic forms and details, and were speaking in stone the language of the time. In the course of his work at Trinity College, Cambridge, in 1665, Wren, in a letter sent with his small scale plans and general directions, seems to half apologize for venturing to suggest detail drawings such as now-a-days it would be simple madness to leave unsupplied; he says—"I suppose you had good masons; however, I would willingly take a further pains to give all the mouldings in great; we are scrupulous in small matters, and you must pardon us, the Architects are as great pedants as critics and heralds."

Charles had put the restoration of St. Paul's into Wren's hands since his refusal to go to Tangiers, for he was anxious to remove all evidence of the havoc wrought there by the Puritans during the long years of the Commonwealth. The central spire had long fallen, and the fabric was much defaced, but Wren had no idea of pulling it down; he wished rather to carry on the work of Inigo Jones, whose portico he greatly admired, by the substitution of Italian for Gothic forms, and more especially by the addition for a central cupola. He early laid great stress upon the desirability of a cupola, and we cannot doubt but that the possibilities of such a scheme were foreshadowed in his mind by the work of Alan de Walsingham at Ely, with which he was well acquainted. It was whilst this was engaging his attention, and whilst the buildings at Oxford and Cambridge were in progress, that he took his one foreign tour. Stimulated, very likely, by the prevalence of the Plague, which was then raging in London, he took advantage of the interval of peace between France and England before the war of the Netherlands to go to France. A glimpse of his doings there is afforded us by a letter to a friend in England; he met Bernini, who was busy on the Louvre, and was greatly impressed, not only with the magnitude of that work, but also with its excellence and with the large number of crafts represented, which, he said "make a School of Architecture the best probably at this day in Europe." We may feel sure that he was not lacking in enthusiasm from the following passage in his letter:—"Bernini's design of the Louvre I would have given my skin for, but the old reserved Italian gave me but a few minutes' view." He certainly made the most of his opportunities, and went wherever there was anything Architecturally grand in the neighbourhood. His sketch-book too must always have been in use. He says "that I might not lose the impressions of them I shall bring you almost all France on paper." This trip, undertaken for the study of Architecture, imbued him to a certain extent with the style of Louis XIV. It is worthy of note that he never reached Italy; whether he intended to extend this journey we cannot tell; certain it is that as events turned out he could never be spared from his native land again, and he had to content himself with the accounts which no doubt John Evelyn, and, in after years, his eldest son were able to give him. He turned back to England either at the end of February or early in March, 1660, so that any alteration in his plans cannot be attributed to the Fire.

On August 27th of that year he presented his design for the restoration of St. Paul's; it at once met with favour and was ordered to be put into

execution without delay, but a fate not so kind awaited the venerable pile. Within a week the Great Fire had laid the city low; London, which had boasted its hundred and twenty Churches and more, its stately mansions, and its picturesque streets, was but a smouldering ruin; the work of destruction was complete. Houseless and Churchless, scarcely recovered from the horrors of the Plague, it is difficult to conjecture even what must have been the dejection of the people as they awoke to their deplorable condition. But it is at such times, however, that the indomitable English courage comes to the fore; London was not to be deserted if human agency could set it up again. Never, perhaps, in the world's history have such calamities befallen a city, never had such an opportunity been afforded any master mind capable of the task of grappling with it. The last smoke had scarce blown away, the smouldering débris was not yet disturbed, when Christopher Wren busily engaged himself with a survey, in order to produce a plan for the rebuilding of the city. The opportunity came, and nothing daunted he realized the immensity of it. In due course he presented his plan, and we see what a model city he would have shown to the world, with its streets of uniform width, and "as near paral.el as possible, avoiding all acute angles," its groups of public buildings, and its well disposed Churches. Such a scheme was possible then, and only then, but already there were too many interests to be considered for it to be practicable, and in spite of Wren's efforts the city gradually rose once more on its old irregular lines.

With the return of quiet and order attention was once more centred upon the Great Cathedral, now, alas, a mere wreck of its former self. The design for the cupola, which was in the act of being carried out before the Fire, was now cast aside as being quite out of the question, and for two years everything that could be devised was done to restore the structure and to retain the work of Inigo Jones at the west end. The east end and choir were patched up and made fit for Divine Service, but in April, 1668, the Dean wrote—"What you whispered in my ear at your last coming hither, is now come to pass; our work at the west end of St. Paul's is fallen about our ears." The hopelessness of carrying on the work thus should by this time have been fully realised, but tentative efforts followed till the year 1670, when the necessity for either rebuilding altogether or leaving the whole to its fate became painfully apparent. We must ever be thankful that the former course was decided upon, and that Wren, who had been on the commission from the first, was appointed to make designs for a new structure. We can imagine with what eagerness he began to formulate his plans, full of hope and noble aspirations; but great trials and disappointments awaited him, and little seems to have been done till years after. For the more speedy procedure of the works the King issued his Letters Patents under the Great Seal in 1673, authorising Wren, who was then Surveyor-General of the Royal Works, to make a large model of one design which had met with special favour. This was Wren's favourite design, the one to which he would most willingly have set his name, but it survives only in the splendid model still to be seen at St. Paul's. The clearing of the site had actually progressed for its reception, but objections arose which put a stop to its fulfilment and outweighed any possibility of its ever being carried out. It will be seen from the plan that no aisles or separate chapels were provided, features always before associated in England with the plan of a Cathedral and the outcome of her ritual. The Court in their inner conscience looked forward to the day when this ritual might be recalled, and obviously such a Cathedral would be ill-fitting for the saying of mass and the ordering of processions. Could it not be possible to erect one which might answer all the purposes of the present by affording ample space for the gathering of congregations and the hearing of sermons, and yet if ever the time came, still be available for the change of ritual? The unfortunate Architect thus found himself confronted, and there was no course but to turn his attention to the accepted type of plan and to vest it as only he knew how. His acquaintance with Ely Cathedral served him again, we may feel sure, for henceforth certain resemblances are quite noticeable in the treatment of the plans about the crossing.

Designs were produced one after another, but no one met with the approval of all parties concerned. At last Wren, who knew that his critics were ignorant and worthless upstarts in matters Architectural, produced a design, which, to a cultured eye, is too fearful to be taken seriously. His critics, of course, fell into the trap thus skilfully laid. It was universally pronounced excellent, and the King, on the 14th May, 1675, granted his Royal Warrant for the execution of this "very artificial, proper, and useful design," as he called it. At the same time he gave permission for certain small deviations to be made from time to time as might be considered necessary. Wren no sooner saw himself thus in authority than, with admirable tact, he refused to publicly expose any further designs or models, and proceeded to carry out the work after his own bent. Supplies were not wanting, for, in addition to the tax on sea-coal levied in 1670, every chance had long been seized to raise funds, and plenty had accumulated to allow of a definite start. Throughout these early years after the Fire, when so much controversy was going on about St. Paul's, Wren had his hands full enough with designs of all sorts; they must indeed have been the busiest years in the life of one of the busiest men who ever lived. The life of such a man cannot be spoken of without passing reference to the labours which played so great a part in it, and it will be well to glance at a few of his more important undertakings, leaving any critical and technical remarks to the portion of my paper alloted to them.

Oxford had long been in need of a theatre for public ceremonies and functions; the "comitia" and "encænia" had always been held in St. Mary's Church, and the usual proceedings at such times ill became the sacred walls. At the munificence of a single donor, Archbishop Sheldon, the want was now liberally met. Sheldon had many a time met Wren in conference, and he now entrusted the carrying out of this great scheme to him. The building, still known as the Sheldonian Theatre, was ready for a grand opening ceremony on July 9th, 1669, and pleased everyone, not only for its design, which is said to be based upon that of the Theatre of Marcellus at Rome, but more especially for its construction. The roof over a span of 70 feet is accomplished without any intermediate supports, and unquestionably is a masterpiece of scientific carpentry.

Greenwich Hospital was always more or less on hand. Originally a Tudor palace, it was quite transformed by Inigo Jones and Webb, and although very far indeed from completion was at one time inhabited by Charles, who, early in his reign, placed it in Wren's hands. It was no ordinary problem which Wren set himself to solve, for he was most anxious not to disturb in any way the work of his predecessors, but so to adjust his new portions that the result might be one harmonious whole. This he eventually most skilfully accomplished, and at the same time he was instrumental in its conversion from a Royal Palace to the uses of a Seamen's Hospital. The imposing river front and the glitter of its two domes must ever keep in the minds of all who pass on that great highway of commerce the consummate talent and generous benevolence of the man who thus converted it to such good uses and gave those talents freely for the innate love of doing good.

(*To be continued.*)

THE Todmorden Urban Council has appointed Mr. C. R. Pease, of Batley, surveyor and engineer, at a commencing salary of £125, rising to £200; and resolved to apply to the Local Government Board for sanction to a loan of £45,900 for a sewerage scheme.

A LABOURER named Cox, with other men engaged in the erection of the building in connection with the new St. James Wharf, All-Saints' Street, Caledonian Road, was in the act of raising an iron stanchion, weighing 25 cwt., by means of a slip chain, when one of the links broke, and the stanchion fell, killing him on the spot.

AT a recent meeting of the General Works Committee of the Coventry Corporation, the question of the sewage scheme was discussed. A letter was read from Mr. Mansergh, the consulting engineer, on various points of objection raised by Lord Leigh's agents, but it is expected that the objections will be overcome.

ROOF-COVERINGS AND THEIR MATERIALS.*

By THOS. STIRLING, JUN., F. WALKER, and GEORGE EWART.

SLATING.—By THOS. STIRLING, JUN.

THE period of the formation of slate was a very early one, and belongs to the Cambrian and Silurian eras, that found in Wales being of an earlier date than the upheaval of the Alps. Slate is one of the primary rocks, and was originally composed of clay diffused amongst the ingredients of granite, forming what are known locally as veins. Slate has assumed its present form by volcanic action, the fine grain and closeness of the texture varying with the amount of pressure brought to bear on it, the nearer the heart of the mountain the better the slate. This action probably took place before the clay had hardened. In this country, these veins run in the same direction, usually from south-west to north-east; they are not found to exist anywhere north of the carboniferous line. The largest vein existing in this country is the one known as the Bangor and Carnarvon; this runs, with little interruption, from the Penrhyn Quarry, through Llanberis, to the Nantte valley, where most of the Carnarvon quarries are situated. Other sources of supply of regular-sized slates are widely apart, the largest regular one being Alsace. A large quantity of red, green, and blue are being sent over. The red slates are similar in colour to those found in the Bangor and Carnarvon veins, and are probably the best foreign slates at present obtained. The green is well known under several names:—Permanent, Sedan, German, Belgian, and Imperial, and is the cheapest green slate in the market. They cannot altogether be recommended for London use, as they contain a large number of specks of iron pyrites, which, after a time, oxidise and break up the surface of the slate. A fair number of dark blue slates are now sent from France; they are very thin, and not to be compared with Welsh slates of similar colour. I have no experience of their durability in London, or, in fact, in this country. America is the remaining source of supply, but, from what we hear, this is not likely to remain steady. They are now sending a large quantity, but this is only the surplus and old stocks which have accumulated for some time. At present they find a market readily, principally amongst small merchants and builders. Generally the larger merchants pin their faith to the Welsh slates, and, as long as they are supported by Wales, will not purchase these largely, if at all.

SLATES FROM CUMBERLAND AND WESTMORLAND

are, as a rule, obtained in random sizes, and vary much in colour, size, and thickness. Generally, the colours of best and seconds are similar, especially in Elterwater and Newtons, where only one colour is worked; but in some of the quarries where two or three shades are found, they are not very carefully sorted; the result is that a slightly speckled effect is produced when close to, but viewed from a distance this is not noticeable. One instance in which this effect has been purposely worked is the house erected for Mr. Beit, in Park Lane. Buttermere thirds were used here, and a mixture of light green, dark green, and deep olive green is seen. A few of the quarries supply slates cut to regular sizes, specially to order, and at a considerably increased price, which makes the work rather expensive. Westmorland slates used in this way lose much of their characteristic effect, and, in my opinion, do not look worth the extra cost above an ordinary green regular-size slate. The slates entitled to the term best Bangor are those produced at Penrhyn and Dinorwick Quarries. Unfortunately few of the best slates from either of these come to London.

FOR LONDON USE,

where appearance is a secondary object, I cannot suggest better slates than the best tons and best mottled. The best tons are capital slates for church roofs. They are laid in slightly diminishing courses, and show about 15 in. at the eaves, and reduce to about 9 in. at the ridge. They are

* Extracts from papers read at the Architectural Association on Friday night.

of a bluish-grey colour, with a tinge of green. The best mottled are so called from the splashes of green in them, and are similar in colour and quality to the best tons, but are somewhat thinner and are supplied in regular sizes. As a matter of experience, actual size has little to do with the quality of the work. If any preference is to be given, 16 in. by 10 in. is probably the best-sized slate of any. For very sharp-pitched roofs and curb work I recommend 16 in. by 8 in., or 16 in. by 9 in.; these slates are lighter and do not hang so heavily on the nails, and having more nailing in proportion to the larger sizes, lay firmer. For flatter pitches, the wider the slate, if of good quality, the better. In a slate 12 in. wide you have quite 4½ in. clear from the joint of the slate above to the nail hole; whereas in a 10 in. slate you only have 3½ in. For medium-pitched roofs, slates sized 16 in. by 12 in., 18 in. by 12 in., and 20 in. by 12 in., make good work. The neatest sized slate I know of is 18 in. by 9 in., and for a roof of 105 degrees this will make good and very neat work. A fact worth noting is that the rougher the slate the less chance of any leakage through rain blowing over the lap; this is accounted for by the greater quantity of air between rough slates than between smooth ones. In proof of this, try and separate slates that have been piled on top of one another after a day's rain. You will find that the moisture has worked in between the slates and excluded the air, and that considerable force is required to separate them. The same action takes place on a roof where the slates fit closely on top of each other; the moisture gathers and finally spreads over the lap or finds a vent through the nail hole. In the slates used largely in Devonshire and Cornwall this is very liable to occur. They are very smooth, and the rain there is more like mist, and quickly finds an inlet, so much so that in most cases the slates are bedded solid in putty. Formerly they were bedded in lime and hair, but that is worse than none at all. It simply acts as a sponge, soaks the damp in, and although it prevents leakage in any quantity, keeps the whole roof damp, and in course of time rots the woodwork. The action of the lime in time

DESTROYS THE SLATES.

The most effective way of dealing with this trouble by means of cement or compositions of that nature is torching; but this is not an entirely satisfactory job, as any vibration in the roof is liable to break the joint, which of necessity is a very fine one; torching can only be done on battened roofs where there is no boarding. The above remarks apply to nearly, if not all, slates of a smooth surface. The slates from the Westmorland and Cumberland districts are fairly representative of the various kinds, and make the most picturesque roof covering of any kind of slate, and this, combined with their extreme durability and the necessity of having men specially trained to use them, as a rule ensures good work. Slating is usually laid piece work, but in this particular class of work we do not make this arrangement, as much for our own benefit as that of our customers. The slater has more work in sorting, trimming, and holing the slates than in the actual laying, and it is necessary for him to set out the whole side of a roof on a rod in the various courses before he can lay a single slate. This frequently causes delay, especially where the builder has been late in giving the order. This is particularly the case where very deep slopes have to be covered, such as church roofs; nearly all the slates must be sorted before the slater can give the gauge, otherwise it is not possible to obtain regularly diminishing courses.

TO SORT THE SLATES PROPERLY

a good deal of space is required, and in large city jobs we are often in conflict with the builders over the space taken up. In using slates of random widths it is, of course, impossible to lay the slates with the joints lining vertically; if this were done much of the characteristic appearance would be taken away, and the effect little better than in ordinary cheap green slates, and the extra substance would be the only advantage. Nails used in this kind of slating are very much stronger than those required in ordinary slating; they should be of the following numbers to the lb.: 2 in., 90 = 1 lb.; 1¾ in., 100 = 1 lb.; and 1½ in., if any are used, 130 = 1 lb. I have sample lots of the nails I recommend for this class of work, and which we invariably use. I should mention that it is impossible to use these heavy nails with thin slates, the spall made in ordinary slates when holding is not large or deep enough to take the extra heavy heads, which, if they are not properly recessed into the slate, have a great tendency to break the slate laid over them, and, if it does not do that, prevents the slates from laying properly. We have had at various times considerable trouble in remote country places when using Westmorland slates; they seem to frighten the country slaters. Certainly they do not appear to advantage when roughly stacked up, and the inexperienced eye of the local slater, whose occupation is usually of a composite character, and who is probably a better authority on rough plastering, pan-tiling, painting, and bricklaying, cannot see how a sound job can be made. To such an extent does this feeling exist that they have, in most cases, succeeded in thoroughly upsetting the proprietor; it is, however, surprising to find how their mind alters during the progress of the job. I cannot recall a single instance where we have had to return to remedy any defect in Westmorland slating beyond the repairs inevitable before the various trades have finished. In places away from the sea, if the roofs are boarded, felted, and battened, I should suggest the addition of vertical battens if the situation is very exposed, say on the top of Hind Head. This course will be quite effective, as any moisture that may be blown over the lap will disperse, and quickly dry up before it has time to do any damage; whereas if the roofs are battened in the usual way there is a stoppage, the batten prevents the moisture dispersing, and the leakage will in course of time become serious. In addition, the current of air keeps the roof very cool during the summer months, and also preserves the slates, which, if cut off from ventilation, are subject in course of years to dry rot, which takes place particularly where slates have been laid in felt on boarding only, reducing the parts of the slates not exposed to the atmosphere to a powder. I am certainly of opinion that if Westmorland and other random-sized slates are used by competent men that a sounder, better, and more

DURABLE ROOF IS THE RESULT.

Unfortunately, the roof originally specified to be covered with good slates is the first thing to be cut down in cost, if circumstances demand a reduction. I note a growing demand for thicker slates, and shall do my best to foster it. Slates are, as a rule, much too thin, but I venture to think that some of the samples I have lately seen will fulfil all requirements, and I shall be only too pleased to give any further information about them. One point I should like to touch on is the covering of domes. We can make a good and effective job by using small slates, 8 in. long. On a small scale this has been done lately at the Royal Observatory, Greenwich, with good effect. I do not think it possible that ornamental work, except in variation of colour, could be worked, owing to the gradual tapering of the slates used as the summit is approached. For a good example of slating in a variety of colours I would refer you to the main building of the Oxford University Museum; the additions have been done since, but a great deal of trouble was taken by the Architect, Sir John Dean, to have his idea carried out, and each section was carried up to the ridge temporarily, and any alterations made that suggested themselves, till the effect desired was obtained. I fear I shall be going from my subject if I touch on slate slab roofs, and I will not do more than refer you to two or three instances:—Front of Camberwell Church covered with Delabole slabs and roll; Herbert Hospital, Woolwich Common, covered with blue Welsh slabs; Sun Fire Office, Threadneedle Street; Registry Office, Edinburgh, covered with Bangor slabs. I think we slaters have one grievance, or at all events something that remains an eyesore to those that take an interest in their work in after years, and that is the ugly stains made by the drainage of lead flats down green slates. This is very noticeable at the new Admiralty Buildings in St. James's Park, and has partly spoilt the effect of the green slates on the roof there.

TILES.—By F. WALKER.

In dealing with tiles as a roof covering, the first thing to be sure of is that you have selected a tile capable of excluding all dampness from your dwelling, and at the same time withstanding the disintegrating influence of the weather. The characteristics of a good roofing tile is density, combined with toughness and incipient vitrification, the last named quality producing, to some extent, that pleasing tint familiarly known as "bloom," one of the peculiarities of the Brosely tiles. Tiles of a bright red, or an earthy red, colour, should be looked on with suspicion, and avoided. They are invariably absorbent, and will not "weather" well. To ascertain the comparative merits of tiles, as to their weathering properties, there is no better test than the amount of water they will take in. Most roofing tiles are slightly absorbent, unless you get the highly fired brindled and blue tiles; and for this reason old tiles have, in a few isolated instances, attained to a higher market value than new tiles, as by age and atmospheric deposit they have acquired an artificial surface coating, and lost the property of absorption—at least on their outer exposed surfaces, though I am inclined to think that they have been desired more from an æsthetical point of view than otherwise, as in the case of Colonel Makin's house in the Exhibition Road, South Kensington, built some sixteen years ago, and roofed with old tiles. The old-fashioned tiles have no nibs or stubbs for hanging, and must therefore be kept *in situ* by means of two wooden pins or nails. In the old days the oak pins, by reason of their unyielding hardness, were a fruitful source of breakage when driving them through the sometimes badly-formed pin-holes at the ends of the tiles. Still, as far as absorption goes, the best kind of modern tiles are capable of excluding all dampness from your dwelling if they be laid with due regard to other conditions, with which I now propose to deal. Where tiles are bedded in lime-and-hair mortar the tops only should be bedded, the mortar extending say, not more than three inches below the head of the tile. If brought too low it may become a source of dampness in exposed situations, by reason of its capillary attraction. As a matter of personal opinion and experience, I would slightly gauge with Portland cement all lime and hair used in the bedding of roof tiles, the additional cost being very small. Where your roof is close boarded (and sometimes felted) there is no need for bedding, though, of course, a covering of bedded tiles is less liable to breakage in climbing about a roof than would be one of unbedded tiles. By gauging the lime-and-hair mortar you make it practically non-absorbent, and therefore less likely to attract and take up moisture.

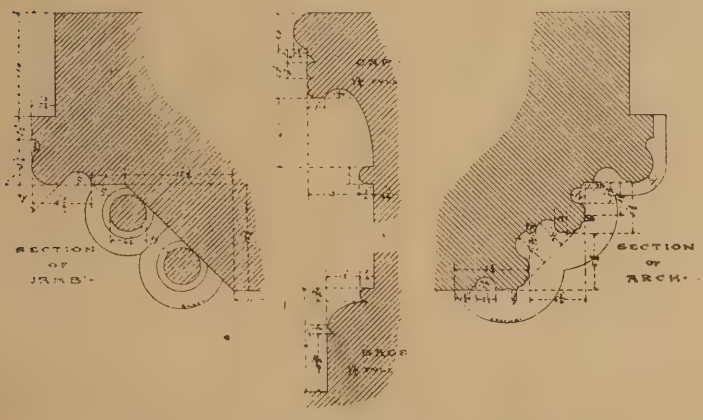
SECRET GUTTERS

at dormer cheeks and elsewhere often become a source of dampness as a consequence of the tiler thoughtlessly beating down the plumber's lead welt or turn over, purposely formed to check or keep back the rain, that his tiles may lie more evenly and in the same plane as the general inclination or slope of the roof. Sometimes the battens, both in slating and tiling, are wrongly carried over the lead welt and nailed through it, in which case you are very likely to get water into your roof. The lead welt should stand its own thickness above the backs of the battens, forming a tilt for the tiles, so as to throw the water away from their edge on to the main body of the roof—the secret gutter performing its proper function by receiving and carrying off the water from the dormer itself, or from any gutter discharging immediately above it. The tiles over-hanging secret guttters 1½ in. should not be bedded on the lead, nor their edges pointed. In some cases where this has been done I have found rain drawn into the roof. Tiles, and tile-and-a-half, should be worked against all secret and other gutters, where practicable, alternately on each course. Secret gutters should be such, and in positions where they will always clear themselves; especially where the dwelling is surrounded with trees. Where the roof runs into a vertical plane or parapet wall, 4 lb. lead-soakers, finished with a skeleton flashing, are always a safe arrangement, though they give the tiling an untidy appearance by preventing the tails of the tiles lying close on the backs of the tiles immediately beneath them. Where a wall cuts obliquely into a roof this arrangement is indispensable. Stepped flashings, with lead extending 6 in. on the roof, should not be used, because of the necessity of distressing the lead to fit the backs and steps of the tiles, and the likelihood of breaking the tiles in the act of so doing. In a tiled roof, valley and hip tiles should be used in preference to lead gutters, secret or otherwise, bedding the valley tiles at their heads to keep them *in situ* and steady while

laying the plain tiles; but laying the hip tiles dry, keeping them in position by a single nail at their head.

HIP AND VALLEY TILES

should not be ordered without proper regard to their enclosed angle or pitch, as they often appear to be, judging by the appearance they make on many roofs in our midst. There is one thing I would like to especially impress upon Architects—the desirability of making the roofs of dormers and gables, springing from and intersecting the main roof, of the same pitch or inclination as the roof, their intersections with which form the valleys. If this is not done, purposely made valley tiles must be obtained, for all hips and valleys stocked by tile-makers are for roofs whose sides have an equal pitch, or else lead gutters must be resorted to. If the ordinary stock valley tile be used, it will be found that the line forming the tails of the plain tiles in each course will fall either below or above the bottom of the valley tile in each case on *one* side of the roof; and so unsightly and distressing is the result, that in one instance I found it necessary to paint the valleys into straight lines that the correct sense of the eye might not be annoyed by looking at them. Where a minor roof runs in at right angles to a greater, or main roof, intersecting it at a point below the main ridge, it is desirable to use a piece of 4-lb. lead dressed to the shape of the minor ridge, and the slope of the main roof, and called a saddle-piece. This, placed over the tiles on the lower roof and under the tiles of the main, or higher roof, prevents the possibility of rain getting in at the junction of the roofs; and the lead can be of such an area as to be covered by the ridge tile, the appearance of lead in a tiled roof being objectionable wherever it can be avoided. The verge should start with *straight* tiles running from the eaves to the ridge (unless interrupted by a chimney-



DETAILS OF INNER DOORWAY, ST. CHAD'S CHURCH.

stack) and be bedded on the outside 4½-in. of the brickwork—the battens being cut back 4½-in. for that purpose. The outside brickwork should be cut up to the rake of the roof and nearly flush with the back of the hanging battens, that the verge, when completed, will have a tilt on its outer edge of at least ½-in. to throw the rain on to the body of the roof, and so avoid rain drippings from the verge. The tiles to be used on the verge should be soaked to saturation, and allowed afterwards to drain, and then bedded in Portland cement, as by reason of the battens being kept back 4½-in. from the face of the brickwork there is fixing for one nail only (or stubb) for each tile. The verge generally projects from 2-in. to 2¼-in. beyond the finished face of the wall, and is finished either with a plain or angular fillet at its junction with the brickwork. The roof tiles on the verge should be alternately tile and tile-and-a-half (gable tile), in its line of direction, and the same remarks apply to the cutting up to hips and valleys, small strips of tiles being undesirable where they can be practically avoided. The under-eaves tile is seldom used in practice in the way intended by the tile-maker. The tiler simply knocks off the two stubbs or hanging nibs and beds them on their backs, the reverse way intended, for the purpose of getting the under-eaves edge close fitting to the eaves-tile bedded immediately on it, the under-eaves being twice nailed, in addition to the security of position obtained by the tilt or spring of the roof.

RIDGE TILES

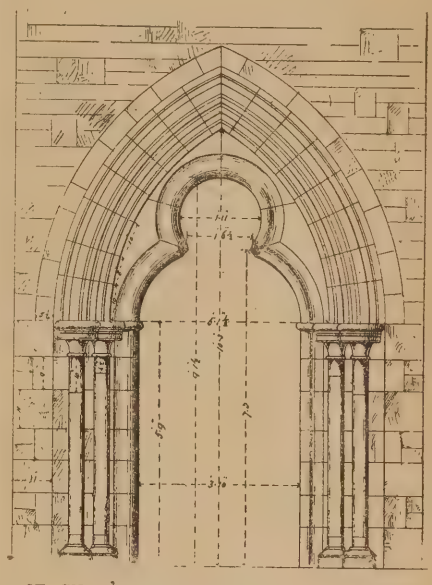
should be of such a section as to admit of being pressed or made in one piece. Where an ornamental cresting is required, it should be made as a separate piece entirely detached from the ridge tile proper, the latter being made with a groove to receive the cresting, as shown in Vol. II, "Rivington's Notes on Building Construction." Under no conditions should the cresting be stuck on the ridge tile by means of semi-liquid clay while they are in the clay state. Such work is more or less defective and unsatisfactory in the end. The simplest form of ridge tile, and therefore the best, is that used by the London School Board, consisting of the two wings terminating in a roll at their angle of intersection. Another good form of ridge tile is that of a plain vertical blade rising from the angle of intersection of the wings, and with the square angle at each end of the blade cut off at an angle of 45 degrees; and which can be pressed in one piece by a simple operation. The weakness of this form of tile is at the junction of the crest with the wings, where it is apt to get broken in transit or careless handling. Ridge tiles should be well soaked before use, bedded in gauged lime-and-hair and their vertical joints drawn up solid with cement, not simply pointed after they are fixed.

THE USE OF DOWELS

I consider altogether unnecessary where this is done. A tile, 9 inches in length, is made specially for the last course of plain tiles coming immediately under the ridge tiles. Where the roof is enclosed on the under side it is customary to bed in lime-and-hair the eaves-courses only for the sake of steadiness in the fixing. In one instance I have seen the rafters pugged (in the same way that you would pug a floor) by nailing a fillet on each side of the rafters, about central in their depth, and then lathing between the rafters, and plastering the same from above with mortar and chopped hay, the rafters being afterwards open-battened to receive the tiles. In another instance I have known the tiles to be laid on open battens and bedded in straw, the Architect claiming that the straw prevented the incoming of snow, and did not prevent the air getting at the roof-timbers for their preservation. Well-formed roofing tiles are straight in their width and hollow in their length, that the tails of each course may lie close and tight on the backs of the undercourse. Straight tiles will not clear themselves one over the other, and should therefore be rejected. Where pointing is necessary—on the verges, for instance—it is customary in good work to grind down some of the broken tiles to mix with the Portland cement as a substitute for sand, that the finished pointing may approximate in colour to the general tone of the roof covering. In the case of vertical tiling, it was customary to hang and nail the tiles on battens fixed to a brick-nogged, or to an ordinary 9-in. wall. I am told this is not now permissible. Under these circumstances, it seems to me that the proper alternative is the use of Wright's patent fireproof bricks—or bricks somewhat similar—which are capable of being nailed into, by the use of which the 2-in. by ¾-in. hanging battens may be dispensed with, the tiles being nailed into the bricks, and the tilt obtained by one or two sailing-out courses at the level where the vertical tiling commences.

COPPER, LEAD, AND ZINC.—By GEORGE EWART.

As against slates or tiles, sheet metal as roofing material has obvious advantages. The sheets of metal may be depended upon to keep the water out from roofs constructed very nearly on a level, that is to say, with only just slope enough to give a fall for water, while tiles or slates require a considerable pitch. Then, if the metal is either zinc or copper, there is the important advantage of lightness; and, finally, sheets of metal are not liable to the dangers of being cracked or slipping off, as tiles and slates are. As to the difference in weight, I may mention here that for a 100 ft., whereas copper, well laid, will weigh only about 1 cwt. and zinc 1½ cwt., slates to cover the same area will weigh from 6 cwt. to 7 cwt., and tiles



ST. CHAD'S CHURCH, LICHFIELD. INNER DOORWAY OF SOUTH PORCH.

about 14 cwt. In attempting to compare the relative claims of each of the three metals—lead, zinc, and copper—as materials for roof covering, one has first to consider what are the chief requirements for a material used for this purpose. These may be stated in the following order:—First of all, durability; then, lightness; then, workableness; next, capacity to resist fire; and, lastly, insonorousness. Though lead is so very much heavier than the other two metals, its want of firmness is still more conspicuous, and, on the whole, roughly, it might be guessed that lead and copper would, surrounding conditions being equal, be of about equal

DURABILITY,

particularly as neither of these metals is easily acted upon by acids. As to zinc, although it occupies a middle place between lead and copper, both in the matter of weight and also of firmness, it is yet quite out of the competition as to durability from the fact that acids act upon it with great facility. The softness of lead has its advantages, since it is easy to use it of great thickness, while at the same time the low price makes it possible to do this without a prohibitive outlay; so that lead may be laid of a thickness weighing perhaps 6 lb. or 7 lb. to the foot as easily as copper weighing only 16 oz. or 18 oz. to the foot. And at these relative weights it would be fair to assume that the metals would be about equally durable. In laying either of the metals, care has to be taken to allow for expansion, and if the proper methods are adopted much can be done to prevent the injurious effects of it; but in considering the relative durability this property must not be forgotten. There is one other thing to consider—viz., the capacity to bear traffic without injury. Flat roofs are very likely to be walked over, and to have things placed upon them, round or under which dirt or moisture can collect. On account of its extreme softness, lead, unless very thick, is easily damaged by traffic; and zinc, although harder, is brittle, and is also easily corroded by foreign matter; and both, as already mentioned, are exceedingly liable to buckles and cracks. Copper, on the other hand, is so tough that it is

PRACTICALLY UNINJURED BY TRAFFIC,

and little liable to corrosion. It should, however, be laid with wood rolls and welted caps, and not according to the old method of stand-up welts. So far for flat roofs. For pitched roofs and

towers or spires the great weight of lead is much against its use. In such positions lead has a way of crawling down, as it is called, and this is a very destructive process and greatly shortens its usefulness. The extreme softness of lead makes it unfit for ornamental work. It is always necessary, when lead is being used, that the wood should first be formed into the shapes, and the lead dressed closely over these; on account of their stiffness zinc and copper do not require the mouldings and ornaments to be formed in the wood, but are sufficiently supported by a rough wood core. Zinc, however, suffers in the process of stamping and hammering, as it is seriously injured by the application of heat. Copper, on the other hand, may be heated to a red, or even a white glow, and then immersed in cold water, without being in any way injured, but by this annealing, as it is called, is rendered soft and pliable, and regains its stiffness under the hammer or stamp. On these accounts copper has come to be very much used for ornamental roofs and for spires, flêches, finials, figures, &c., for which it is also specially adapted on account of the little weight per foot which it is necessary to use Lead has been so very largely used for roofs for many hundreds of years, that it is unnecessary to quote instances as to its lasting power when properly laid on flat roofs, but as the durability of copper is not so well known, I may mention one or two examples. The tower of the Parish Church of Hampstead was covered with copper in the year 1784, and the copper is still in good condition, being of a beautiful green colour. Some years ago, however, in a severe gale, two or three of the sheets were blown off, and had to be replaced by new sheets, which, of course, have still the dark look. Next to the paramount question of durability comes that of weight, or rather of

LIGHTNESS.

Here, of course, lead cannot stand comparison with either zinc or copper. Lead is so soft, and has so little coherence that in order to make a good job, it is found necessary to lay it very thick—nearly ⅛ in. But, at the same time, lead is exceedingly heavy, so that a square foot of this thickness weighs upwards of 7 lbs., it thus happens that when allowance has been made for the necessary rolls and laps, the lead necessary to cover a square of 100 ft. weighs rather more than the slates which would be necessary to cover the same area, and at least half as much as plain tiles. Zinc, on account of its superior firmness, is laid in the best manner at about one-fourth of this thickness and less than one-fourth of the weight, say, 1½ lbs. to the foot; but then, as already mentioned, zinc cannot be relied upon to stand more than about one-fourth of the time that lead will. With copper, however, the case is different. Here we have at least equal durability to that of thick lead, with a thickness still less than that of zinc, and a weight of only 16 oz. to the foot. On new structures, substantially built, the question of a few tons, more or less, upon the roof, is not, I suppose, of very serious consequence. Yet, even in such structures, it may be often worth while to be able safely to use lighter timbers; but for an old roof, where the supports are not too strong, a few tons, one way or the other, may make a very great difference. It is unnecessary to add that as a covering to spires, flêches, domes, and suchlike erections, the comparative lightness of copper makes it exceedingly appropriate. Coming now to the next desideratum in a roof-covering, which, for want of a better word, I have been obliged to name

"WORKABLENESS,"

I must explain that I mean by this the possibility of being turned up with moderately sharp angles and twisted over into welts. As already mentioned, all the three metals under consideration expand and contract with changes of temperature—though copper very much less than either zinc or lead—and therefore all require some arrangement which will leave them free to expand and contract without blistering. And then, of course, the sheets have to be somehow joined together, and the joint is to be made, if possible, without solder. For it is found that the places where soldered seams have been made perish long before the rest of the metal is worn out. Although lead is so soft, yet on account of its great thickness it cannot be easily welted, and requires large rolls. On the other hand, its weight and softness incline it to lie close even without joints, only then, of course, it is easily displaced. Zinc, being the most expansive of the three metals, and being also more brittle than lead, requires great care in laying, and the provision of very free play for each sheet, both at the ends and sides. On this account, many drips are needed. This is something very objectionable on account of the increase in height. Copper, on the other hand, expands so little that if wood rolls are used at the sides of moderately-wide sheets, the ends may be safely welted together in considerable lengths, and so few drips are necessary. At the same time, copper is so easily worked that welts are readily made, and may be used not only to connect the sheets in lengths but also to fasten them to the roll-caps at the sides, thus making a very firm and light covering. As a fireproof material, copper is immensely the best of the three metals. The last property I named as required in roof-covering was Insonorousness. Here lead has the immense advantage of its exceeding softness, and the same quality of softness makes it a non-conductor of heat. Lead has the advantage over copper of making much less noise in driving rain or a hailstorm, but copper has perhaps still greater advantage over lead, being only about one-sixth the weight, being almost absolutely fireproof, requiring very little support in ornamental work, having only a little more than half the expansiveness under heat, and consequently requiring fewer drips. To which may be added its capacity for being easily welded, and, finally, the beautiful colour which it becomes from a damp atmosphere after a few years of exposure.

KEYSTONES.

A DESTRUCTIVE fire occurred at Bradford last week, at Penny Oak Mills, the property of the Bradford Banking Company. The mill was gutted, the damage being estimated at £30,000.

MR. H. HEMMINGWAY, retired builder and contractor, of Sheffield Road, Hoyland Common, when about 300 yards from home, was, last week, thrown out of his trap and killed.

A WATERSPOUT has burst over the village of Povoacao, not far from Ponta Delgada, in the Azores, destroying the most important part of the place. There was considerable loss of life.

IN Paris a use has at last been found for the nearly empty Invalides. A military historical museum is to be installed there. Old trophies, it is hoped, will thus be saved from destruction.

Mr. Crouch, C.E., Glasgow, has been appointed consulting engineer by the Dumbarton Board for the new bridge which is to be built over the River Leven between Alexandria and Bonhill.

THE additions to Ayr electric lighting works are likely to take a more extended form than was at first contemplated. Mr. Robert Hammond, the consulting electrical engineer, has received instructions to prepare specifications for two sets of plant, each capable of generating current for 6,600 lights.

MR. ALMA TADEMA has sent to Florence a portrait of himself, which he was invited to contribute to the gallery in the Uffizi, of portraits of eminent arrists painted by themselves, among which are to be found those of Lord Leighton and Sir John Millais.

THE cross of Siberian jasper, sent by the Russian Government to be erected in Northwood churchyard, in memory of the late Sir Robert Morier, formerly British Ambassador at St. Petersburgh, has been landed at Millwall Docks. The instructions for the cross to be cut at Peterhof were given by the late Czar before his death. The cross was especially made from Siberian jasper, with the view of commemorating Sir Robert Morier's successful efforts to open up Siberia to British commerce.

IT is stated as a curious fact that Lambeth Palace has never been properly safeguarded from fire. So far as can be gathered the only water supply actually available on the premises, and the means of bringing it into play are utterly inadequate. It may seem absurd to talk of danger from fire to a building standing on the very edge of the Thames, but a little consideration will show that to leave such a treasure-house for preservation by road or river is not wise. It is expected that Dr. Temple, on entering into the tenancy, will see that such work as is necessary to put the palace into a thoroughly safe condition will be carried out.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
November 11th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

REFERRING to our paragraph last week, calling attention to the rector of Burnham Thorpe's appeal for funds for the restoration of his Church (p. 202), a member of the Society for Protection of Ancient Buildings calls attention to the extraordinary and sometimes grotesque reasons put forward by the incumbents of Churches for the purpose of obtaining subscriptions from the public. The death of an archbishop, bishop, or any other prominent personage is always considered a sufficient reason for restoring or enlarging a Church to his memory, and a proposal has been recently made to build an additional tower to Truro Cathedral as a memorial to the late Archbishop Benson, he having been at one time Bishop of Truro. Elstow Church, near Bedford, was restored on the plea that the immortal and enthusiastic tinker Bunyan, was born at Elstow, and had worshipped in the Church in his youth, the beams of the 14th-century oak roof (which was removed as being unsound), being sawn into slices and used as covers for binding a new illustrated edition of the Pilgrim's Progress. The vicar of St. Lawrence-on-Sea, near Ramsgate, succeeded in raising a considerable sum for the purpose, among other things, of removing the mediæval external plastering from the curious Norman tower of his Church, on the ground that Her Most Gracious Majesty, when residing in the neighbourhood must have in passing frequently gazed upon the tower of the Church. But perhaps the most curious reason assigned for restoring a Church, is that recently given by the rector of Fleet, Lincolnshire, who proposes to restore his Church to the memory of his late wife, and is soliciting subscriptions for that purpose.

AT last week's meeting of the London County Council, considerable discussion arose from the investigation by the Comptroller of certain accounts sent to him by the Works Department for examination. It appears that the system adopted by someone in the employ of the Council had been to debit one job with material which was supposed to have been used on another, and at a greater price than it originally cost. Thus, by way of illustration, it may be stated that when on one job, say, at Islington, it was found that there was about £500 worth of material left, this quantity would be handed over to a job, say, at Streatham, and debited to that particular work always at £500, but more often at £700. Thus £500 worth of materials was made to show in the books as £1,000, and this, naturally, was the means whereby "profits" could be shown.

IN course of time all the main thoroughfares of the metropolis will be provided with subways for the accommodation of pipes and mains. The convenience would be immense, as the constant interruption of the traffic by the breaking up of the roadways would be obviated. The Highways Committee of the London County Council, to which the question was referred in January last, has reported that the lowest estimate of the cost is £46,000 per mile, while a more elaborate system, with occupation vaults on either side of the road, suggested by Mr. Emden, would involve an outlay of £98,208 per mile! Against this last expenditure, however, is to be set an estimated return in the shape of rentals for the vaults and payments from the water, gas, and other com-

panies of £3,942 per annum. The Committee regards the first estimate as prohibitory, and the second as untrustworthy so far as rentals are concerned, and impossible in face of the opposition the scheme would encounter in Parliament.

MR. JAMES F. FIELD, the President of the Auctioneers' Institute, delivered the inaugural address last week at the Institution in Chancery Lane. He dwelt with his subject under the heads of laws affecting land, the law of distress, land transfer, the Building Act, drainage, rating, the law and practice of compensation, sale results, probate valuations, and the progress made by other institutions similar to their own connected with the profession. In opening, the President said he hoped the status of auctioneers might soon be raised by the election of one of them to Parliament, where the multifarious details with which they, as a body, had to grapple would, when their adjustment came before the Houses in bills affecting land, have some exponent of the views of the Institute. Dealing with land sales, he remarked that the profession seemed to be emerging from the recent period of depression, for the sales recorded to October 1st, 1896, exceeded those for the corresponding period of 1895. They had still, however, much leeway yet to make up to get back to the prosperous times of the seventies. It was satisfactory, too, to note that the benevolent fund of the Institution, although not sufficiently developed, was receiving increased support. In conclusion, he congratulated auctioneers as a body upon the progress they were making.

FLEET STREET has at length commenced to be widened, but how many years will elapse before this much needed work is completed no one can guess, and it may be that the end no one now living may see. Two or three new houses at the Ludgate Hill end of Fleet Street have risen above the ground level, with fronts set back to the line to which the whole of that side of the thoroughfare is intended ultimately to conform. The improvement thus effected will be enormous, but so likewise will be the cost; and it is apparently in order not to increase the latter consideration that the widening will be effected only as leases fall in or other convenient opportunities occur. But though this may secure a present saving, it will assuredly prove more expensive in the end, as the experience of widening Ludgate Hill sufficiently shows. The piecemeal process was adopted there, and it occupied thirty years, with the consequence not only that the value of the property to be taken doubled within the period, but that new interests were allowed to be created and additional claims to be accumulated, which enormously increased the cost.

MR. G. A. STOREY, A.R.A., recently read a paper before the members of the Camera Club upon "What an Artist has to say about colour." To the Artist, he said, the subject of colour was of absorbing interest, and, he considered it as necessary to a picture as gold was to a guinea, and one of the chief elements which gave it real and lasting value. He could almost go so far as to say it was the one element which distinguished the true from the false in painting. Speaking of the scientific aspect of the question, the Artist had this one great consolation, that, while science taught us that things were not what they seemed, Art depicted their aspects and showed us what they seemed although they were not. So that while science told us that there is no such thing as colour, our ordinary senses told us that nature was all colour, and that she was decked in thousands of tints a thousand times reflected; nor could we get rid of the idea that poppies were red, the grass green, daisies white, and violets blue. If the photographer was an Artist he would long for colour, and wish to make the best of the monochrome in which his work was produced. If, as science said, there was no such thing as colour, a study of the scientific aspect of colour might save those photographers who were striving to produce photographs in colour, a deal of trouble, for if colour did not exist how could it be photographed, unless, indeed, the very plate itself were intellectual and saw what did not exist. The lecturer gave the grammar of colour; its words, namely its tints; its sentences, namely its combinations of tints; and, finally, its song, the complete composition from which nothing could be taken, and to which nothing could be added without destroying the harmony.

IN view of the large extent to which iron is used in building operations at the present time, the following general conclusions, arrived at be a Commission appointed by the Hamburg Senate to examine and report upon the resistance to fire offered by wrought-iron pillars used in construction, are of great interest. They withstand fire very imperfectly, their stability being quite destroyed at a temperature of about 600 degrees C., and the advantage of filling them with concrete is so slight as to be scarcely worthy of consideration. The case is, however, far different with outer coatings of refractory or non-conducting materials, which have proved capable of protecting the metal from a dangerously high temperature during a certain space of time, and consequently of affording effective protection against fire. According to the Journal of the Society of Arts, the substances which appear to have exerted the best effect are a special cork composition and xylotile encased in sheet iron, which substances give out inflammable gases for two hours and a half, leaving a carbonaceous residue that is not destroyed by the stream from the fire hose. A pillar thus coated only gives way after being exposed to the fire for four hours, while seventeen minutes suffice to destroy it if uncoated when similarly heated.

IN Glasgow at the first general meeting of the fortieth session of the Institution of Engineers and Shipbuilders in Scotland, Sir William Arrol delivered his presidential address, and congratulated the members on the continued prosperity of the Institution. Their membership was 768, and as 33 members were to be balloted for that night, they would start the new session with a membership of about 800. It was pleasing to think that the influence of the Institution was still extending, and that their representations on engineering and shipbuilding questions carried considerable weight in the proper quarter. It was well that they should consider if their Institution might not do more for the engineering profession, in which they were all so directly interested. One suggestion for increasing the usefulness of the Institution was that they should appoint local honorary secretaries in some of the leading engineering centres in Scotland outside of Glasgow, such as Edinburgh, Greenock, Kilmarnock, Paisley, and Dundee. There was no doubt that in this country they wanted good technical colleges and schools. In Glasgow they had had a good technical college for the last 100 years in the Andersonian College, and some of the greatest men in their country had come through that Institution. But at the same time, Glasgow had been very far behind in this question. Up till recently the University had not had such a thing as an engineering laboratory, but he was glad to say that difficulty had been overcome. Some time ago the Bellahouston Trustees offered the sum of £12,500, if a similar sum was raised in Glasgow, for the purpose of building an engineering laboratory at Glasgow University. He was very glad to say that that sum had been obtained within about £100. He also believed that the Bellahouston Trustees were prepared to give £25,000, if the people of Glasgow would raise other £25,000, for the purpose of building a technical college to replace the present one, and he thought that sum would be forthcoming, and that they would have a college which would answer the purpose for the next generation. A great number of their young men, however, counted too much on the technical education they got in schools, and thought they were superior to the ordinary apprentices who had only a good plain education. Young lads were kept far too long at schools, and got notions that they should not go into the workshop and learn to work like other people.

A CONTEMPORARY asks why it is that wall-paper makers abandon old and favourite patterns for new and untried ones, and says, "Common sense would lead one to suppose that so long as there was a demand for a pattern it would continue to be on sale; but not so, if the statement of one of the first houses in the trade is correct—namely, that they never keep a pattern in stock more than two years. This may account for the mediocrity which characterises most of them." Wall-paper patterns, like many other things, depend upon the fashion, and the manufacturers are bound to keep pace with the times or "go to the wall." For our own part we think the designs of the present day by Walter Crane, George Haité, Voysey, and others, compare more than favourably with any of those no longer in general use.

CERTAIN alterations which are now being carried out by the Benchers of the Inner Temple are arousing a good deal of criticism in the Temple. A new entrance to the Common Rooms and Hall is in course of construction. Two or three sets of chambers have been absorbed into the Common Rooms, and a new porchway made to the entrance at the back of the Library buildings. The new porches have been designed by Mr. T. G. Jackson, R.A., and the work is likely to cost a considerable sum, after reckoning in the loss of rent for the chambers. As the new Bar Association has with difficulty extracted from the Benchers a contribution to their funds, there is naturally a little soreness that money should be spent so lavishly in improving the special territory of the Benchers. Report has it that the Bar Association has made complaint to the Benchers upon this large outlay of funds, which they hold in trust for the benefit of the profession, and that some correspondence has passed. At present the alterations are being hurried on in order to be ready for Grand Night. In the Middle Temple, 2, Plowden Buildings has been transformed internally and made into lecture-rooms, while the ground floor has been turned into new Treasury Offices. Here, too, the Benchers have placed a new doorway, which has been designed by the Surveyor to the Inn, and shows as usual the arms of the Treasurer in the arch overhead, to be surmounted by the lamb when it is completed.

AT last week's meeting of the London County Council, a recommendation of the Asylums Committee for the erection of temporary iron buildings to accommodate 400 additional patients on a freehold site adjoining Hanwell Asylum at an estimated cost of £30,000 was adopted. It was agreed to set back certain premises in Millbank Street, Westminster, at a cost of £6,250, in connection with the proposed rebuilding of Lambeth Bridge. A scheme for the efficient drainage of North Woolwich, at an estimated cost of £67,450, was approved, and a tender of £34,350 for two new engines for the outfall works at Crossness was accepted.

AT the adjourned inquiry into the sanitary aspects of the proposed new cemetery at Golder's Hill, Dr. Hoffman presided on behalf of the Home Office; Mr. Augustine Birrell represented the Abney Park Cemetery Company, which proposes to take the twenty-nine acres of land near Hampstead Heath for burial purposes; Mr. Paine appeared for the Ecclesiastical Commissioners, Mr. Johnson for the Hampstead Vestry, Mr. Bevir for the Hendon District Council, and Mr. Done on behalf of All Souls' College, Oxford. Many of the residents and owners of property in the neighbourhood were also represented. According to a very general local opinion as to the scheme, although the site of the cemetery is in Hendon parish, Hampstead is, perhaps, more interested in checkmating the project than Hendon. Mr. G. E. Clarke (surveyor to the company), Mr. John Pollard (civil engineer), Dr. Stevenson and Dr. Poore were the witnesses. They were examined by Mr. Birrell on behalf of the company, and cross-examined by the opposition. The plans of Mr. Clarke and Mr. Pollard, their experience in the drainage of cemeteries, their method of dealing with the sludge, the chemical precipitation of the putrefactions which flowed from the graves—all these were minutely gone into and scrutinised, and the "International Company's system," compared with them. Altogether the upshot of the proceedings, so far as they went, upon exclusively sanitary grounds, was not unfavourable to the establishment of the proposed cemetery. The æsthetic and sentimental side of the question was not gone into.

ABOUT the Royal Society of British Artists' Exhibition, in Suffolk Street, there does not at first seem much that can profitably be spoken. No doubt the canvases that fill the greater part of the walls serve some wise purpose in the scheme of creation—these hand-painted oleographs, these Christmas presentation plates signed by the Artist, these "very foolish sunsets" in feeble water-colour: and we hope without bitterness that the close guild of limners which provides the show

may find it a commercial success. If the British patrons of the British Artists still love to have it so, so be it. And yet a doubt intrudes. Is even the long-suffering public, or some portion of it, getting a little tired of the blue-eyed child with the green umbrella in the brown snow, the mischievous terrier-pup, and the crepuscular tea tray? For such unquiet spirits, if such there be, the British Artists are prepared. They will show themselves "up-to-date," and for those who are discontented with the good old brands, they have a few choice specimens in stock, freshly imported from the students' quarter. To give a list of the oleographs and Christmas numbers were a superfluous task; it would take up too much space, and it might even give offence to a respectable body of craftsmen. The pictures, or some of them, admit of discussion. In the Central Gallery, the first thing to strike the eye is Mr. Bunny's "Eos," hung in the middle of the western wall. The picture is a harmonious arrangement of pearly pink and blue, and is charming in sentiment, and an interesting example of its kind. Mr. Herbert Oliver sends a study of red lilies (No. 8), a piece of patient observation, which yet somehow fails to convince us that the painter has liked the flowers he interprets. M. Fantin-Latour always inspires this conviction with his gift of "natural magic." Mr. Oliver also exhibits two clever landscapes, painted more freely and spontaneously than his larger work, and a portrait head. Mr. Charles Eastlake has two evening landscapes, decorative in colour. Mr. Titcomb, too, has a colour-study in "Nature's Garden." Among other good landscapes one may mention Mr. Brough Johnson's, the "Harvest Moon" and "Sea Holly" of Mr. Julius Olsson, beautiful in colour; Mr. Reginald Frampton's "Inner Quay, Polperro"; and Mr. Warrener's "Moulin Rouge at Night," in which the sky seems too heavy.

THE long agitation for the preservation of the Churchyard Bottom Wood, Highgate, as an open space was brought to a satisfactory settlement at the meeting of the Hornsey District Council last week. The price required for the 25 acres was £25,000. The District Council, at the suggestion of the chairman, Mr. Cory Wright, has voted £10,000 towards the sum required, and Mr. Wright has undertaken to raise the remainder. The time for the purchase expires in December, and after that date the estate would have inevitably been absorbed for building purposes, which would have been regretable. The Gravel Pit Wood, adjacent to the Bottom Wood, belongs to the Corporation, and was opened as a public park in 1886. It is 70 acres in extent. The portions now secured to the public have, therefore, a combined area of 95 acres.

THE decoration of the Choir of St. Paul's Cathedral is now nearly completed, but a large sum is needed to carry on the work in the dome. Moreover, a sum of £3,000 is required for improving the organ and bringing it up to date. The Goldsmiths' Company, Mercers' Company, and Merchant Taylors' Company have subscribed second donations of £1,500 each.

THE last great work of decoration upon which he late William Morris was engaged was a large tained-glass window for the Church of St. Germans, Cornwall, the old diocesan Church. The window, which is 30 feet high and 16 feet broad, and consists of 10 lights, was designed by Sir E. Burne-Jones. The new window is regarded as the finest modern embellishment in any Church in the West of England. It was recently dedicated by the Bishop of Truro.

A NOTABLE local industry in one of the lumber districts in Canada consists in sifting the sawdust arising from the operations and, mixing it with an equal quantity of clay, working the mixture into a building material known as porous terra cotta brick. The material is said to be absolutely fireproof in character, and has a marked deadening effect when employed for partition walls in houses. The material, though light in weight, will stand a prodigious crushing strain, and can be sawn into convenient shapes as desired. Nails can be driven into it, as into wood, and when heated, even to a white heat, sudden immersion into water will produce no cracks.

THE hall of the Tower Hamlets Royal Engineer Volunteers, in Victoria Park Square Bethnal Green, was recently opened by Lord Wolseley, who made a minute inspection of the new buildings, which occupy the same site as the old headquarters destroyed by fire. The drill hall itself is a large and commodious structure, and there is the usual armoury store-room and other accommodation, while a spacious yard in the rear is reserved for practical instruction in engineering work.

THOSE builders who are apt to regard local authorities as common enemies and tyrants, with their regulations as to width of new streets and other matters, will rejoice at the (at least temporary) triumph which one of themselves has obtained over the Yeadon District Council. The District Council, on the other hand, has appealed, and will ultimately have the satisfaction of obtaining a final judicial answer to the question, What is a street? The issue was raised in connection with some building reconstruction which the plaintiff was undertaking on his own land. Between the two houses he left what he described as a mere passage; but the Yeadon District Council regarded it as the beginning of a new street, and insisted that it should be made of the regulation width. Mr. Justice Kennedy, in the Queen's Bench Division, decides that it is a passage, and not a street, because no door opens into it. This seems a clear and plausible definition. But as a matter of fact, many new streets are commenced with an end house, which has not a door into the bye-street. Therefore the Yeadon District Council holds itself justified in appealing, and the result will be awaited with interest by many other local authorities.

AT Hampton Court Palace, hidden somewhat by the great hall, are to be found courts as they were in the days of the great Cardinal Wolsey; quaint nooks with an old-time air about them; a paradise for the antiquary, and artist, for this part breathes of the Tudor period. In the Wolsey part of the Palace, almost under the great dining-hall, and separated only by a dark cloister, are the three kitchens, in which were provided the meals for the Cardinal and his immense retinue. On entering the largest of them, you find yourself in a hall some 30 ft. in height, about the size of the kitchen hall in Windsor Castle; originally the ceiling was a handsome one of wood, replaced at some bygone period by something much inferior. The place is now the repository for articles of interest found on the Palace premises. Among the collection are three horn lanterns, an ancient copper kettle with swing handle, several most beautiful large copper braziers of quaint patterns, to hold live charcoal, used for warming guest-rooms, a portion of a lead water-main, about seven inches in diameter, and metal an inch thick, a similar pipe being in use at the present time, to conduct water from the Home Park to the Palace, From these relics of the past one turns instinctively to the enormous fireplaces and wood ovens built along each side of the hall. The arches are most elegant, but rather low, recessed about four feet and divided by two low walls into three separate fireplaces. In these stand original parts of the old spit used by Wolsey's cooks. The second kitchen is smaller, but the same height, containing ovens. Everything is most crude, with the exception of the ovens. The meals were passed through traps cut in the walls between the kitchens, and taken under the dining-hall up the back steps (now closed) at the rear of Wolsey's retiring-room.

A MEETING of the General Purposes and Improvement Committee of the Belfast Corporation was held last week, and the fifty-one sketch-plans for the new city hall, submitted by various Architects, considered. Mr. Waterhouse, R.A., and Mr. Bretland, city surveyor, who had been deputed by the Corporation to examine the plans sent in in competition, having completed their task, read their report to the committee. They pointed out, we understand, the various defects in the six plans which they had selected as the most suitable. Several of the members spoke concerning the requirements of the Corporation in regard to the building, and ultimately, we have been informed, the committee decided that the three plans, numbered 30, 42, and 43, should be reserved for the final competition. It is stated that any one of these plans could be carried out for the sum mentioned in the Act of Parliament—£150,000. Each set comprised four sketch-plans: the front elevation facing Donegall Place, the ground plan, the first floor plan, and the second floor plan.

AT a cost of close upon £1,200, the hall of the Cutlers' Company, in Warwick Lane, has just undergone complete redecoration. The handsome oak roof has been picked out in gold, and the rest of the building cleaned and redecorated. The ventilation has been considerably improved, and the electric light installed throughout the building. This latter work has been executed by Messrs. Laing, Wharton, and Down, of Gracechurch Street. The redecoration has been the work of Messrs. Harrison and Spooner, of College Hill, the whole being carried out under the supervision of Mr. Alex. R. Stenning.

THE members of the East Riding Antiquarian Society recently visited Hull, for their annual gathering. First, St. Mary's Church, in Lowgate, was inspected, built in 1333, on the site formerly occupied by "the Chapel of the Blessed Virgin," mentioned in the will of Wm. Skayl. The Knights of the Temple of Jerusalem, who had a Preceptory at Ferriby, used the new Church for worship and burial. At the end of a hundred years it was enlarged in the Perpendicular style, and thus was begun the present great Church. Although there never was a parish of Hull, St. Mary's was the first parish in Hull; and within the precincts have been buried 22 Sheriffs and 34 Mayors of Hull. In 1863 the Church was restored by Sir Gilbert Scott. At Trinity Church the visitors saw the old silver plate, chiefly 17th-century work, and a beautiful 13th-century MS. of the Vulgate left in Hull by Lord Fairfax; and an historical and descriptive account of the Church was given by Mr. J. R. Boyle, F.S.A. After dealing with the enterprise of the monks of Meaux in seeking to acquire the Lordship of Myton, in which the fishing hamlet of Wyk-super-Hull was situated at the close of the 12th century, Mr. Boyle spoke of the *capella de Myton* as dependent on Hessle, and as occupying the site of the present Church of Holy Trinity, Hull. Remarking upon differences between the Rector of Hessle and the monks of Meaux, he referred to the destruction of the Chapel as an act of retaliation by the monks, and to the controversies which followed with the Canons of Guisborough. Then, passing to a consideration of the date of foundation of the existing Church, he questioned Burnsall's ascription to Jacobus Helward in 1285. It was in 1341, he said, that Helward founded a chantry; and the Church itself was probably dedicated by Archbishop de Wickwaine about the year 1279–80. Scarcely any other evidence, he observed, could be found relating to the early history of the Church than that furnished by documentary allusions. The structural peculiarities, however, implied the existence of an earlier edifice of considerable dimensions. The choir appeared to have been completed about the year 1361; the nave commenced in 1389, and finished in 1418. At one time, probably, the tower was crowned by a spire. Taking the company round the Church, Mr. Boyle commented on some of the more striking architectural features; the fine specimens of mediæval brick—Hull was famous for brick manufacture in the Middle Ages; the varied tracery of the windows—in particular the admirable examples of curvilinear; the air of elegance imparted to the interior by the tall light shafts; these and other points were all noted.—During the day the Annual General Meeting was held in the Town Hall.

Some interesting particulars in regard to Christ Church, Newgate Street, have been revealed in the demolition of the houses at the corner of Newgate Street and King Edward Street. In the first place is disclosed the fact that the house next to the south side of the Church in King Edward Street was built upon the Church wall, and actually into the Church wall, in a very remarkable manner. It was a house not above eight or ten years old, and was lately occupied by a beef shop. In the first place it blocked up a door of the Church to which access was once obtained by a still-existing panel-door in the wainscotting which surrounds the Church's interior. Besides this, the staircase of the house was accommodated within the most easterly of the window openings on the south wall of the Church. To effect this arrangement the glass was taken from the opening, which was then walled and plastered on the Church side. Part of the

mutilated architrave of the window still remains to show the rough treatment to which the outer stonework of the Church wall has been subjected. To crown all, the top cornice mouldings of the Church have been serving as the ceiling mouldings in the top rooms of the now demolished building, and it is a curious sight to see them in their present revealed state. Moreover, the wall papers in those top rooms, where they adjoined the Church, were pasted direct upon the outer wall of the sacred building, which still remains papered in divers colours. The writer is not prepared with any support for the theory, but, from the existence of the now blocked door on this side of the Church, there appears some possibility that at one time the Parsonage stood on the site of the now demolished house in King Edward Street. When the builders acquired the right to build into the Church window cannot be determined. What, however, is most interesting of all in connexion with the present revelations is the fact that within the cellar of the house alluded to there are to be seen not only the massive foundations of the Church, but also the lower portion of a great buttress which has no counterpart above ground, Christ Church being on this side without any buttresses. It is well known that this edifice occupies the site of the Choir belonging to the ancient Greyfriars. It was destroyed in 1666, and rebuilt by Wren in 1704. The Friary Church was of far greater dimensions than Wren's buildings, for its Nave stood on what is now a disused burial ground at the west end of the present Church. Within the Church itself the present Chancel is elevated upon two steps stretching throughout the whole width of the building. There can be but little doubt that these are the original steps, or have at least taken the place of the original steps, which formed part of the approach to the high altar of the Friars' splendid place of worship. This theory finds confirmation in the fact that the present Chancel, above the steps, is paved with the exceedingly old and much-worn slabs of stone or marble upon which the Friars themselves actually walked, for the slabs were saved from the ante-fire building. In all probability the buttress in the cellar is nothing else than one of the buttresses which formerly supported the south wall of the Greyfriars Church.

UNDER the auspices of the Health Section of the Cardiff Exhibition and the local District Council of the National Registration of Plumbers, a conference of registered plumbers and others interested in public health was recently held at Cardiff, when a number of representatives attended from Bristol, Cardiff, Swansea, Devonport, Cornwall, and South Hants District Councils. Mr. Edwin Seward, Architect, President of the Cardiff Centre, presided. Dr. D. S. Davies, Medical Officer of Health, Bristol, read an interesting paper on "Public Health in Relation to the Registration Movement." It was, he said, indisputably of importance that some limit should be placed upon the undertaking of important work by incompetent men, whose errors and whose neglect tended to bring the whole art of plumbing into disrepute, and to cast an undeserved stigma upon capable and conscientious craftsmen. It was inevitable that sooner or later the experience of the practical plumber would be required in every sanitary inspector; and such experience was, he maintained, one of the first essentials for an inspector in a large town. Some few years ago sanitary inspectors were chosen from almost any class of applicant, but applicants were now required to show the possession of some special knowledge by the production of some such certificate as that granted to inspectors by the Sanitary Institute. Now, he attached a high value to the certificate of the Sanitary Institute, but the weak point about it was that, with coaching, a man might—and did often—acquire such certificate after a few months' reading. In his opinion, the public health service would be best served by the appointment of men as sanitary inspectors who, as registered plumbers, possessed technical and practical knowledge, and who, having in addition taken the Sanitary Institute certificate, had thus added some special knowledge as to disease, legal requirements, bye-laws and regulations. Such men had received the training calculated to yield the best results for the community. Mr. E. Seward, of Cardiff, contributed a paper on "The Architect's Relation to the Registration Movement," in the course of which he advocated the greater development of decorative plumbing. He would like to see the expert work of plumbing in the hands of experts. This was not easily obtained under the system of tendering, but could be done by making separate contracts for plumbing.

THE London and North-Western Railway Company has contemplated establishing a railway museum, and lack of room alone has stood in the way of the carrying out the idea. A National Railway Museum would certainly be interesting. The London Brighton and South Coast have plenty of old stone sleepers and old rails and rolling stock, and the South-Eastern have a very early type of engine, the "Invicta." Apart from purely railway material, some of the lines must have some remarkable archæological relics discovered in the course of construction. There is undoubtedly the nucleus of a railway museum at South Kensington, where may be seen, along with personal relics of George Stephenson, the first railway locomotive ever built. But the importance of an invention and industry which has spread from England throughout the world surely deserves a museum of its own. But if it is delayed there will be a dearth of material—American agents have been ransacking the country for objects for the Field Museum at Chicago, and French agents are looking out keenly for objects for the Exhibition of 1900.

OUTSIDE of Somersetshire—the home of those fine square-built Church towers—it would be difficult to find any structures superior in their style of Architecture to that of St. John's, Cardiff, and one can well imagine the remark of Professor Freeman that the fine old tower of St. John's looked as if it had swum across the Channel. Unfortunately its stability is becoming impaired with the ravages of time, and for three years it has been deemed inadvisable to ring the bells. At a recent meeting, held to consider what action should be taken in the matter, Lord Windsor said he would like to point out one important matter with regard to the work of restoration. There was a great danger of committing one of two mistakes, either to make the work of restoration so complete that all the ancient stones are absolutely replaced, and the structure be practically a new one, when all its archæological interest is lost, or they fell into another mistake which a certain enthusiastic society endeavoured to bring about, that was, that ancient buildings of Archæological and Architectural interests should not be touched at all, and should be left to crumble away as the ravages of time compelled it to do. He thought such ancient buildings as could be preserved should be preserved, and only such new work should be put in as was absolutely necessary. Mr. C. B. Fowler's report on the condition of the tower was read. In this report Mr. Fowler proposed to only restore parts which are perishing and dangerous, preserving all the portions that are sound, and make good the details of lost features similar to the original. Since he had examined the tower in 1889, Mr. Fowler said the north and west angles of the belfry stage and the east and west faces of the traceried battlements had suffered considerably from the effects of the weather. Large pieces of these battlements might at any moment work loose and fall. The buttress weathering, strings, quoins, window-heads, jambs, arches, tracery plinths, and doorways required much repair. Mr. Fowler then dealt with the cost, which totalled up to £2,596 17*s*. This is exclusive of Architect's fees. It was eventually resolved to proceed with the work at once. About £1,000 has already been promised.

AT a recent meeting of the Middlesbrough School Board, Mr. Geo. Mosses moved that instead of tenders being invited for the erection of new schools, the Board appoint a committee to carry out the work without the intervention of a contractor. That course had been taken by the London County Council, and during the half-year ending Oct. 26, the cost of the work carried out in that manner was £80,000, whereas the estimate of the Architects and Surveyors was £85,000. They had thus saved £5,000, and on a total expenditure under the scheme which he proposed of £383,000 there had been a profit with the exception of the commencement. He had a letter from Mr. John Burns, M.P., who said there was no comparison in the quality of the work done by a contractor and that done by the Board itself, and that this had been admitted by the Engineers and Architects. The work done under the Board reached the highest pitch of excellence. He thought they would save between £600 and £1,000 on the work they proposed to do by the adoption of the system he suggested. After full discussion the motion was lost by nine votes to four.

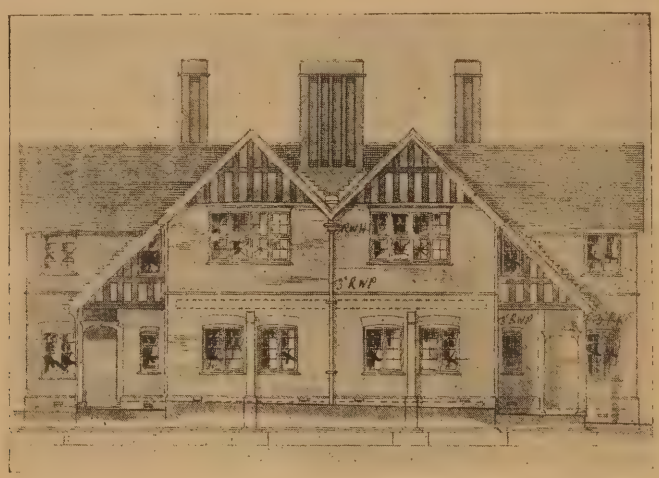
THE Dean and Chapter of St. Paul's Cathedral are again trying an experiment in the lighting of this vast edifice. The present system—the standards in the Nave and the jets at the top of the quarter-arches of the dome—is totally inadequate, and moreover the jets of gas are not only destroying the stonework, but very seriously injuring the splendid mosaics which surround the dome. It is proposed to use incandescent gas, and the authorities are having large globes with five burners to each suspended from the top of the columns of the quarter-arches with a view of spreading a more beautiful and effective light around. It is to be hoped that the experiment will prove to be a greater success than that of the electric light, which was provisionally tried some year or so back.

M. EMILE RIVIÈRE, sub-director of the laboratory in the College of France, has found human bones, flint weapons and pottery belonging to the New and Old Stone Ages, in a cavern at La Monthe, in the Arrondissement of Sarlat. Along with these are remains of the bear, hyæna, reindeer, and ox. Designs on the walls of the cave represent the bison and other extinct animals. Some of the drawings are coloured with ochre, and their antiquity is proved by the fact that stalagmites have been formed over some of them.

AT a recent meeting of the Académie des Sciences, Paris, an interesting paper of a practical nature, on the efficacy of lightning-rods, was communicated by MM. Mildé and Grenet. There is a difference of opinion as to the efficacy of lightning-rods as they are now made, and any practical experiments on the subject are most welcome. The Tour St. Jacques, Paris, is protected by a copper lightning-rod, which is connected to the earth by several bands of copper, and also to a metal ring round the flagstaff on the summit by several metal chains which hang from the ring and form a sort of cage over the platform there. The arrangement permits observers on the platform to witness the lightning discharge through the chains to the rod. The authors have thus observed as many as five successive discharges of lightning in a quarter of an hour, by the sparking between the links of the chains. In one stroke the stem of the lightning-rod was made red hot for a length of about 18 inches at the moment of discharge. This shows that lightning-rods ought to have a diameter large enough to prevent overheating by successive discharges. Thin conductors may be all very well for a first discharge, but might be melted by a succession of them, and leave the building at the mercy of those which followed.

MR. JOHN FAULKNER, of Manchester, says that for about sixty years after St. Paul's Cathedral was completed there were no lightning conductors of any sort, and the new building was liable to suffer in thunderstorms—just as its predecessor had been liable and had suffered before it. In 1769 a committee of the Royal Society took the matter in hand, and, under its recommendation, the metal work of the lantern was connected to the lead of the dome by means of strips of lead and one-and-a-quarter inch square iron bars, the lower portion of the dome's lead roof being connected to the down-spouts on the stone gallery, and so to the down-spouts of the roof of the nave, and ultimately with the ground, into which the lead down-spouts pierced for three feet, a distance considered to be sufficient to carry away any electricity collecting on the building. The pinnacles on the summits of the western towers were similarly connected to the ground by way of the nave roof. In 1873 these arrangements were examined, and it was found that not only had the iron rods rusted so as to be in themselves a positive source of danger, but that in many cases the old iron hoods of the rain pipes, which hoods had originally acted as the connection between the rods and the pipes themselves, had been exchanged for granite hoods six or eight inches thick, through

which the electric discharge was left to pierce. Upon this state of affairs becoming known, the dean and chapter appointed Mr. Faulkner to provide efficient protection against lightning, with the result that the top of the cross surmounting the dome and the tops of the pinnacles on the western towers were then connected with the sewers in a manner believed to be capable of thoroughly protecting the Cathedral from any peril by lightning whatsoever. Mr. Faulkner says that he knows of no building in London which was protected against lightning by a system of conductors prior to 1769, when, the Cathedral conductors were first erected.



PAIR OF COTTAGES, EPPING, ESSEX.—JOHN W. RHODES, ARCHITECT.

PETERBOROUGH CATHEDRAL is in difficulties—apparently, indeed, ever increasing difficulties. Sir A. Blomfield, who has been called in to report upon the great west front, states that it is suffering from original defects in the foundations. Sir A. Blomfield advises that the foundations of at least the west walls of the north and south towers should be examined, and, if found necessary, underpinned and cemented upon the solid rock. Sir A. Blomfield adds that much of the superstructure has become torn and disintegrated, bringing the whole into a dangerous condition, and rendering substantial and lasting repairs impossible without taking down and rebuilding some of the existing work above the caps of the great towers. Altogether some £11,000 or £12,000 is required to prevent the great west front from going to rack and ruin.

THE second bell in weight in the world, that at Mingoon, in India, has lately been raised from the ground, and arranged so as to ring again after a lapse of nearly a century. This bell weighs between 90 and 100 tons. It is surpassed by the giant at Moscow in weight, but the latter has lost a large piece out of it, and, as it is used as a Chapel, cannot now be rung. The Mingoon bell is 12 ft. high and about 18 ft. in diameter at the rim. The immense wooden beams on which it formerly hung have long since been broken down at the shackle. It has recently been rehung on a steel girder at a height of 25 ft. from the ground. It is proposed to encase the supporting columns and girder with carved teak in a Burmese design, and then erect a cupola over the whole structure. The bell at Pekin, which is the third largest in the world that can still be used, weighs only 58 tons.

NEXT year there is to be an International Art Exhibition at Munich. There is usually an exhibition there every year, but on the forthcoming occasion it is to be on a much more pretentious scale than hitherto. The authorities, however, appear to be rather afraid of the expenses which will be incurred. At former exhibitions there has usually been a British section, the cost of transmission of which was borne by the Munich authorities. They are now asking us to ourselves bear these charges, and this, all things considered, is not a very unreasonable request. Still as Government grants for Art are of the meagrest, some fears are entertained in Art circles lest the necessary funds are not forthcoming. Naturally there is some diffidence in asking private Art patrons to contribute. The Royal Academy, however, is a wealthy body. Why does not it come forward?

Professional Items.

AINTREE.—A new institute and café were formally opened last week and presented to the town by the Earl of Derby. The new premises comprise public and private cafés, reading rooms, lecture hall, recreation rooms, two billiard rooms, and a public hall to seat about 750 persons. The site—at the junction of Longmoor Lane and Warbreck Moor Road—has been carefully chosen, this being the main thoroughfare from Ormskirk, Knowsley, and all the outlying districts by which agricultural produce is conveyed to the Liverpool markets. The hall is designed in the perpendicular Gothic style, and with its old English half-timbered exterior, presents a picturesque appearance. The buildings are erected from Ruabon bricks with Halifax stone dressings, and the roofs are covered with red Ruabon tiles. The total cost of the land and buildings has been £8,000, and the work has been executed from the designs and under the superintendence of Mr. F. W. Dixon, Architect, Manchester and Oldham.

BELFAST.—At the fifth meeting of the general committee of the Belfast Cathedral, held in the Diocesan Rooms, Clarence Place, the Architect's plans were submitted to the committee; and, on the motion of Canon O'Hara, seconded by Lieutenant-Colonel M'Clintock, it was resolved—"That the committee approve of and accept the plans and designs submitted by Mr. Drew, reserving to themselves the power of effecting such alterations in detail, under the advice of the Architect, as may be considered advisable."

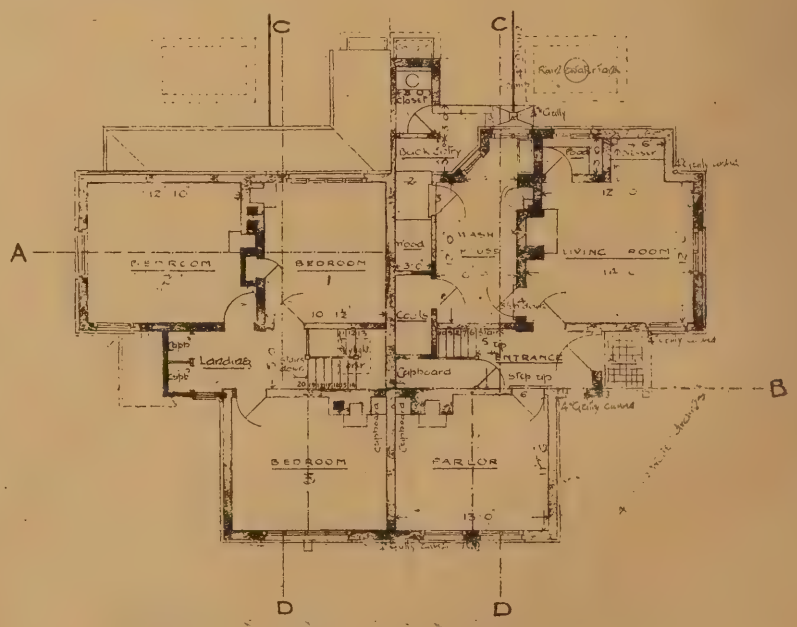
BEMERTON.—We understand that Messrs. Harry Hems and Sons carried out the carved woodwork, at the restoration of St. Andrew's Church, further particulars of which appeared in our issue of the 28th October.

BIRMINGHAM.—New Wesleyan schools are being erected in Bristol-road. The new block of buildings will contain a schoolroom, 61 ft. by 41 ft., a gymnasium of the same size in the basement, and large room for young men's institute, a lecture hall, 42 ft. by 34 ft., and nine large vestries on the ground and first floor. The new buildings will provide accommodation for about 1,000 children. The total cost of the building will be about £6,000, this including renovating the present Church, and the erection of a new rostrum, with choir and organ gallery behind. The work is being carried out from the design and under the superintendence of Messrs. Green and Brockbank, Architects, of Liverpool, and the contractors are Messrs. James Moffat, of Birmingham.

BRISTOL.—A bronze memorial tablet has been erected in the vestibule at the museum and library, Queen's Road, to commemorate the generosity of the late Sir Charles Wathen in undertaking the discharge of liabilities connected with the institute before it was handed over to the city. The tablet is of a massive description, and it has been modelled at the museum by Mr. H. J. Margetson.

BYKER.—Foundation stones of a new Presbyterian Church were laid last week. The Church is being built in Gordon Road, off Raby Street, from the plans of Messrs. Badenoch and Bruce, of Pilgrim Street, the contractor being Mr. Alex. Bruce. The Church is planned with nave and aisles, the aisles and west end having galleries. The ground floor is seated for 480, and the galleries for 270, making a total of 750. The design of the building is a simple treatment of the Early English style; the walls are of local stone with rock-faced snecked work outside, the bays of the nave being indicated by external buttresses which finish above the eaves with dressed stone pinnacle weatherings. The Church will be heated on the low-pressure hot water system, and the ventilation is by means of Sherringham and other wall inlets, with two of Cousland and Mackay's concealed roof ventilators, and one of their large ventilators placed in a flèche on the roof.

CHICHESTER.—A new Church Room has been erected to supply the needs of the parishioners of St. Paul's. Red bricks and tiles, with woodwork, chiefly of pine, have been used in the construction of the building, which is of a plain, though very substantial, character, and will afford accommodation for about 250 persons. At one end there is a platform, while there is an ingenious arrangement near the centre whereby a partition can be let down for the purpose of dividing the room into two. In the matter of lighting and ventilation the arrangements appear to be of the most satisfactory kind. The total cost of the building (including furnishing, &c.), will be about £800. Mr. Lacy Ridge was the Architect, and Mr. F. M. Vick the builder.



COTTAGES, EPPING, ESSEX.—JOHN W. RHODES, ARCHITECT.
(GROUND AND FIRST-FLOOR PLANS.)

CHIPPENHAM.—Hungerford Chapel, at the south-eastern end of the old Parish Church of St. Andrew, has been for some time under renovation. The general fabric was most conservatively restored some 18 years ago at a cost of upwards of £7,000. The roof of the Chapel—interesting for the strength of its English oak

timber and ornate character—was not, however, then touched. For a long time past it has been in a bad condition, so much so, indeed, that for many months prior to the recent most necessary repairs it had to be propped up with scaffolding poles. The roof is now entirely new, formed of well-seasoned oak, traceried, moulded, and well carved. It rests upon supporting angels, bearing shields; two of them new and exact replicas of the original 15th-century figures. The intersections of all the roof timbers are covered by carved oak bosses, with "crow's feet" attached, and of the local conventional perpendicular character. The whole is covered in with thick sheets of lead. The works have been carried out from the designs and under the immediate direction of Mr. Graham Awdry, Architect, of London, the general contractor being Mr. William Light, of Chippenham. The carved oak work and the sculptured angels are by Messrs. Harry Hems and Sons, of Exeter.

DUBLIN.—A scheme is on foot to found a society for Architectural students in Dublin, which will place in their way educational advantages beyond mere office work, by classes, access to standard works of Architecture, visits to buildings, and general discussion. It is also proposed to stimulate public interest in Architecture by occasional popular exhibitions and lectures. Mr. Drew, R.H.A., the President of the Royal Institute of Architects of Ireland, has written warmly approving of the project, and has, among other offers of assistance, made a generous offer to form a reference library for the use of the members, and to place a room at the disposal of the association.

FETTERCAIRN, N.B.—A large addition is to be made to the Ramsay Arms Hotel. The present building, which was slept in by Her Majesty the Queen, Prince Albert, and Princess Alice during their visit to the district in 1861, has very limited accommodation; but when the extension is carried out it will have a large coffee-room, servants' premises, drawing room, billiard-room, as well as numerous bedrooms. The Royal apartments are to be retained and fitted up as a suite of rooms, consisting of parlour and two bedrooms. The building has been designed in harmony with the present erection and its quaint surroundings. The walls are to be harled in cream colour, and the roof is to be covered with red tiles. Mr. T. Martin Cappon, of Dundee and Brechin, is the Architect for the work.

FRIZINGHALL.—Standing on an eminence near the centre of Frizinghall, the new Church was recently consecrated by the Bishop of Ripon. The Church is in the decorated Gothic style of Architecture, and was designed by Messrs. H. and E. Marten, of Bradford. The contracts were let to Messrs. James Bairstow, mason; John Moulson and Son, joiners; G. Swaine, plumber and glazier; Andrew Taylor, plasterer; B. and T. Thornton, slaters; and John Roome, painter. The total cost is upwards of £3,500, of which £3,000 has been raised.

GLENTANA (N.B.)—The foundation stone of new School Buildings was laid last week. The Architect, Mr. Truefitt, has furnished an ornate design, and the external appearance of the buildings, though they are still far from completion, is pleasing.

GLOUCESTER.—Considerable alterations have been carried out at the Shire Hall, Gloucester; the additions comprise a new council chamber with Councillor's cloak room, Chairman's private room, and a waiting room and treasurer's pay office on the south side of it. The old grand jury room will be used as an office for the clerk of indictments and as a committee room. The old quarter sessions room has been dismantled and converted into offices for the county surveyor and his staff. A glazed screen, with swing doors, has been fixed at the north end of the entrance hall, and the lighting of the entrance hall has been improved by the introduction of borrowed lights on either side. A boiler house, engine house, and extensive storage rooms or workshops for county use are provided under the Council Chamber and the adjacent buildings. The Assize Courts, the Council Chamber, and the Assembly Room have been warmed and ventilated on the "Leicester Plenum" system. The new Council Chamber, which is 48 feet long by 37 feet wide, and 22 feet high, is lighted principally by ceiling lights. The entrances are at three corners of the room. The walls and ceiling are covered with fibrous plaster decoration, treated in classical style, with high dado, Ionic order with fluted pilasters, enriched entablature, cove and coffered ceiling. On the east side is a bold arch enclosing a handsome oak chimney piece, which bears the Royal Arms. During the progress of the works it was found that the old buildings were in an insecure condition in consequence of the decay of the baulks of timber, which were built in lengthways on the foundation walls. This heavy building was therefore resting on thin facing stones. All decayed timbers have been removed and replaced by Portland cement concrete and hard blue bricks in cement, and the building is now in a safe condition. The buildings were erected by Mr. H. A. Forse, of Bristol, from designs by Mr. Medland, County Architect.

KILMARNOCK.—The foundation stone of the new Academy, which is being erected by the Burgh School Board on Elmbank Estate, was recently laid. The new School is being erected to plans by Mr. R. S. Ingram, and is estimated to cost upwards of £10,000.

LONDON, E.C.—The Cripplegate Club and Institute was opened last week by the Lord Mayor. It is still another of those Institutes which are encircling London, such as the Bishopsgate and St. Bride's Institutes, the People's Palace, the Northern Polytechnic, the Northampton Institute; and its objects and its scope are the same as theirs. It has a lending and a reference library, concert hall and theatre, newspaper and magazine rooms, and class rooms, and it is to have lectures, concerts, and classes for technical and other instruction. A distinctive feature is the provision made for girls and women in the intentions and accommodation of the Institute. The building is situated between the corners where Golden Lane and Brackley Street join Cripplegate Street, and its spacious rooms are well-lighted and decorated in good taste. The Architect was Mr. Sidney Smith, of York Place, Adelphi, and his designs were carried out by Messrs. G. and H. Bywater, of King Street, Covent Garden.

MILL HILL.—Sir William Henry Wills, Chairman of the Court of Governors, recently laid the foundation stone of the new Chapel at Mill Hill School. The new Chapel is being built of red brick in the Renaissance style with white stone facings, the interior being fitted with oak. The cost will be £5,000, exclusive of the site, which is the property of the Governors, and already £3,500 is in hand, £1,000 having been given by Sir W. H. Wills. Sir W. H. Wills said the school was founded nearly a century ago, and testified to the great importance which the old Nonconformists attached to a first-class classical and mathematical education. After a brief historic retrospect, he alluded to the present prosperity of the school, and said that, more space being required, it had been determined to use the present Chapel for more secular purposes and build a more æsthetic edifice. The Architect is Mr. Basil Champneys.

NEATH, SOUTH WALES.—The new working men's club in High Street, will be another Architectural feature in the town of Neath. Building operations were commenced this week by Mr. Abraham George, contractor; the Architects are Messrs. Lambert and Rees, Neath.

NEWCASTLE.—The new building, designed to take the place of the old Blue House, facing Jesmond Dene Road, on the North Road, Newcastle, is now virtually complete. The building will be surrounded by a neat palisading enclosing garden ground for each tenant. The house is of brick, and in the east side has been inserted a stone slab, on which has been cut the following inscription:—"Rebuilt, 1896, by the Stewards and Wardens of the Freemen. Jno. D. Walker, Chairman." The Architect was Mr. Albert Farthing, and the work has been carried out by Mr. F. C. Slater, builder, Bath Lane.

NEWCASTLE.—New premises for the Elswick Branch of the North-Eastern Banking Company, Limited, have been erected on a site at the corner of Scotswood Road and Gloucester Street. On the ground floor is arranged the banking room, entered direct from Scotswood Road, with a manager's office opening off the main room, doors for access being provided from both front and back of the counter. These rooms are designed with panelled ceilings, and the wood-work is finished in polished teak. The strong room is lined with glazed bricks, and has complete fittings. Lavatory and cloak rooms are also provided. The first floor is arranged for offices, to be let off. On the upper floor caretaker's rooms are provided. The exterior is of classic design, broadly treated, with quiet and refined mouldings rather than elaborate ornamentation. The facing is of polished ashlar, with polished granite introduced to the base course, pilasters, window linings, &c. The contractor for the works was Mr. G. H. Mauchlen. The building has been erected from the plans of Mr. Wm. L. Newcombe, who designed the head office for the Company in Gray Street.

NORTHALLERTON.—The Northallerton Consumers' Gas Company, Limited, has just completed extensive alterations and improvements at their Gas Works at Northallerton, having erected new carbonising plant, which has been fitted up on the generating principle by Messrs. J. Welsh and Sons, of Halifax. The new building has been designed by Mr. Wm. Bell, Architect, of Northallerton. With the new plant the supply of gas can be just doubled, while the cost of the new plant is a trifle over £1,200.

RATHMINES.—A large hall, including caretaker's apartments and committee rooms, has just been erected at Rathgar, in Rathmines, to take the place of the old schoolhouse. The new hall is commodious and well lighted. The Architect is Mr. Beator, and the builder Mr. Crichton.

SEDGLEY.—New Board Schools are being erected in Bilston Street. The premises are being constructed in two large blocks—one for boys and girls, and the other for infants—the exterior being composed of batted bricks, with moulded dressings and stonework. The whole of the interior woodwork will be stained and varnished. The accommodation is for 910 children, and the contract price is £5,950. Mr. A. P. Brevitt is the Architect, Mr. T. Jones the builder.

WORCESTER.—At a recent meeting of the Executive Committee of the Infirmary, the tender of Messrs. Wood and Son, Worcester, was accepted for the erection of the new Nurses' Home, adjoining the Worcester Infirmary, the amount of the tender being £4,133. It was stated that £300 or £400 more was required to complete the fund necessary.

GLASGOW ARCHITECTURAL SCHOOL.

THE opening lecture of the session, on the Historic Development of Architecture, was delivered in the Glasgow School of Art, by Mr. William J. Anderson, A.R.I.B.A., on the 2nd inst. The lecturer indicated two different ways in which the study of Architectural history might be approached to advantage. Those with scientific tendencies would seek to assign causes for periods of brilliance or degeneracy, progress and retrogression, and attempt to discover order or design in the whole evolution. On the other hand, those in whom the artistic faculties were stronger would probably be content to mark the variations of the forms and features of different styles, the modifications wrought upon them by constructive improvements, and the exigencies of material and situation. To the practical Architect this latter attitude was all-important, and would form the chief matter of the course; although it would be a shallow doctrine of Architectural development which saw nothing save the constructive evolution in Architectural history. The most powerful of the direct influences shaping Architectural works was their purpose: the destined use of the building. Nothing else counted for so much, and the faithful interpretation of this purpose led to a

study of the race, the national unity, its religion and manners, its psychological bias. It was the conjunction of a great utilitarian purpose with the opportunity of artistic expression that raised Architecture to the importance of a petrification of history, in a larger sense than either the minor Arts or Literature. As examples of the influence of nationality, the lecturer drew attention to such a phenomenon as the Greek race, who, notwithstanding the evanescence of its great period, exercised for two thousand years a repeated influence upon the Art of Italy and Europe; also, the different degree in which the Romano-Germanic nations imbibed the Rennaissance Architecture, in accordance with the extent to which they had been civilized by Rome, or had admitted the Latin language into the current coin of their speech. Such reflections would naturally occur, and could not be ignored by the student of Architecture, however little they might help him in his practical work. At the least they served to g ve him some worthy conception of the dignity of his Art, and emphasized its true glory in all periods in its subservience to the wants of the time, and its truthful expression of its spirit.

SOCIETY MEETINGS.

The Architectural Association.—At the meeting held on Friday night, papers were read on Roof Coverings; Mr. T. Stirling, jun., treating of "Slating," Mr. F. Walker of "Tiles," and Mr. G. Ewart of "Copper, Lead, and Zinc," extracts of which we give in another column. A full discussion followed the reading of the papers, in which the President, Mr. Banister Fletcher, Mr. Seth Smith, and Mr. H. W. Pratt took part. Several questions were put and answered by the authors.

The following were elected members of the Association:—Messrs. E. A. Ould, W. L. Dowton, junr., J. G. Ross, D. H. Bentley, C. L. Brierley, C. H. T. Comyn, M. J. Davies, F. K. Weedon, C. W. Beaumont, C. M. Berington, A. P. Brohier, R. H. Butterworth, W. C. Butterworth, P. B. Chatwin, T. Gray, B. Greig, E. E. Hale, F. L. Coelman, R. G. Parkhurst, P. Procter, F. A. Richards, V. Wilkins, A. A. Carder, T. Gregg, J. D. Hunter, F. M. Kirby, H. C. Norman, R. Spalding, J. B. W. Weaver, S. Wheeler, L. G. Detman, C. H. Gage, C. L. Steel, W. J. Pritchard, E. L. Hall.

Edinburgh Architectural Society.—At a meeting of this Society in Dowell's Rooms, on the 4th inst., Mr. A. R. Scott in the chair, a lecture was delivered by Mr. D. M. Westland, C.E., on "Strains," illustrated with numerous diagrams. At the close the lecturer was awarded a hearty vote of thanks. The drawings submitted by members for Design Competitions Nos. 2 and 3, "A Highland Parish Church and Lych Gate," were on view.

The Institution of Civil Engineers.—The seventy-eighth session of the Institution of Civil Engineers was inaugurated last week by an address from the President, Mr. J. Wolfe Barry, C.B., F.R.S., in the Institution Buildings, Great George Street, London. Mr. Barry having alluded at the outset to the length of the Queen's reign, went on to say that the material advances which the country had made during that period were so remarkable, and had depended so much on engineering developments and progress, that he proposed to make a general survey of the subject, in the direction, however, rather of recording effects than describing the means by which such results had been attained. Dealing first with railways, he illustrated with statistics the great growth of the railways of the kingdom, and said that speed and certainty of supply and delivery of goods meant less money employed by the trader, a quicker turn-over of capital, and often the gain or retention of a market in consequence of such advantages. He could not but think that many persons who so often advocated the renovation of inland canals, and who hoped for some great and radical benefits to trade or agriculture as a result, lost sight of these necessities of certainty and speed in modern trading; and for himself he had little confidence in a mode of transit which was slow, deficient in power of convenient distribution, and necessarily uncertain, as largely depending on rainfall, and liable to be entirely deranged by prolonged frost. Better far than reconstructing inland canals would be the spending of money in improvements of railway facilities and in the lowering of railway rates. In speaking of the enormous business done by the Post Office, he expressed the opinion that the management of the telegraph offices left very much to be desired, holding it to be unpardonable that the bulk of the telegraph offices should be closed for nearly 12 hours out of every 24 on week-days. In his judgment, it should be possible to communicate by telegraph at all times of the day or night. Having referred to the submarine cable, he went on to deal with the work of the sanitary engineer, and the vast benefits to public health which had accrued from that work. Regarding the work of the engineer as applied directly to domestic life, he said that the invention of the sewing-machine, the adaptation of machinery to the manufacture of watches and clocks, nd the invention of the safety bicycle, touched and would continue to touch the home-life of more individuals, directly and intimately, than many other engineering developments of the epoch. The comfort and well-being of all classes had improved enormously by those developments to which he had referred as embraced during the reign of the Queen. He also reviewed the progress of the Institution of Civil Engineers. In 1836, the total number on the roll was 238 and the income £713. Now the roll contained 6,000 names, or nearly 7,000, counting students, and the ordinary annual income upwards of £25,000. In 1837, the Institution was in debt; now the property stood at upwards of £100,000, including the freeholds of the premises—a result attained in spite of the facts that they spent about £20,000 on their former premises and had defrayed the greater part of the cost of the new building in which they were assembled. His closing remarks were for the most part confined to a consideration of the question whether they were quite certain that the present system of gaining the credentials of the Institution was satisfactory. He argued in favour of qualifying, not competitive, examinations for their degree of associate member.

Liverpool Literary and Philosophical Society.—At the last meeting of this society, Dr. Newton presiding, three papers on the late William Morris, dealing with his poetry, art, and social theories, were read by Mr. R. J. Lloyd, Mr. H. Longuet Higgins, and Mr. R. Gladstone, jun., respectively. Mr. Higgins, speaking of work in connection with stained-glass windows, said there was a fine example of the joint work of Burne-Jones and Morris in the windows of All Hallows' Church, Allerton. Morris should be held in remembrance among book-lovers who valued books as artistic works, and among those interested in Fine Art as applied to ecclesiastic purposes.—Mr. Gladstone said that Morris was a Socialist in a general sort of way. His mind was not an analytic one, and his writings did not show a complete acquaintance with the economic aspects of Socialism. He had stated his conception of Socialism as "a condition of society under which there should be neither rich nor poor, neither master nor master's man, neither idle nor overworked," and in which there should be a full consciousness that harm to the one "meant harm to all, the realisation at last of the meaning of the word commonwealth." It was chiefly with the artistic side of Socialism that Morris concerned himself in his earlier days, and it was comparatively seldom that he discussed Socialism apart from Art. Of his opinions in his later years he had left an account in Vol. II. of "The Socialism: Its Growth and Outcome." He advocated the abolition of private property with the exception of each man's personal "gear," as he called it. Marriages were to be abolished, or rather were to be dissolvable at the will of either of the parties. He laid great stress upon the influence of music, and believed that it would occupy a large place in the education of the future. He believed in communal institutions, and accepted all the foremost socialistic theories.—A discussion was opened by Principal Rendall, who remarked upon the slight attention which had been paid to one who, he believed, was the last of the Victorian poets.

LENBACH, the famous German portrait painter, is now at work on a picture of the Prince of Wales. Among his best pictures are those of Prince Bismarck, Pope Leo XIII., and Mr. Gladstone.

THE House Committee of the Sunderland Guardians has decided to build a workhouse infirmary after the model of that at Dewsbury, at a total cost of about £20,000, subject to confirmation by the Board.

Trade and Craft.

IMPORTANT TEST CASE.

At the Howden Petty Sessions, the Broomfleet School Board, Geo. Patchett, farmer, and a member of the Howden Rural District Council, and Robert Martin, farmer, of Broomfleet, were prosecuted at the instance of the Howden Rural District Council, under the provisions of the Public Health Acts, for neglecting to abate a nuisance, which, it was alleged, was injurious to health. The case for the prosecution, which was borne out by Dr. Fisher, Medical Officer of Health, and numerous other witnesses, was that each of the defendants drained their premises into a running stream known as the "Broomfleet Beck," which was the only source of water supply for the parish, and by their action it was said that the water was so polluted as to render it totally unfit for domestic purposes. In November, 1895, the Parish Council of Broomfleet called the attention of the prosecuting authority to the condition of the Beck, which, they complained, was seriously polluted. The Medical Officer of Health subsequently visited the place, and obtained a sample of water, which was analysed by the Public Analyst, who issued a certificate to the effect that the water contained contaminated matter to a very great extent. Upon that the District Council pointed out to the Parish Council that, under the Local Government Act, 1894, they had themselves power to deal with the water supply. Nothing further was done in the matter until the Parish Council communicated with the County Council, when the District Council, to whom the analyst's report was returned, were directed that it was their duty to provide a water supply for Broomfleet. Mr. Villiers, of Beverley, under directions from the District Council, visited Broomfleet, and subsequently reported that there was one of the best supplies that could be obtained in the county, but added that it could not be utilised until the pollution in various ways was stopped. The defendants being contributors to the pollution of the stream, were served with notices for the discontinuance of the same, but they had refused to do so. The water obtained from the Beck was the only water supply of the village, and yet the School Board drained the sewage from their school into it, and the other defendants contributed in a similar manner. In cross-examination, all the witnesses for the prosecution admitted that the stream was polluted before it reached Broomfleet. For the defence it was urged that the prosecuting authority was really the guilty party, inasmuch as they, being the sanitary authority for the district, had failed to carry out Section 15 of the Public Health Act, 1895, which provided that every local authority should keep in repair all sewers, and should cause to be made such sewers as may be necessary for effectually draining their district. The District Council had not provided a proper system of drainage, in spite of the fact that the School Board had promised to abate the nuisance as soon as the District Council had provided proper means by which the sewage could be carried in another direction. At the close of a lengthy legal argument, the Bench ordered the nuisance to be abated forthwith, or, in default, a penalty of £5 would be imposed upon each defendant.

THE VALUE OF A DRAWING.

On Wednesday, the 4th inst., at Westminster County Court, an action was tried in which Mr. Charles H. Smith, of Coalville, Architect, was plaintiff, and the defendants were the proprietors of the Illustrated Carpenter and Builder. The plaintiff claimed £1 10s., being the costs of a drawing for the paper; the defendants were represented by Mr. John Black, who, in answer to questions, stated that he had given the order for the drawing, admitted his liability, and judgment was given for the plaintiff with costs forthwith.

BIRMINGHAM BUILDING TRADE.

The representatives of the Operative Bricklayers in the Birmingham building trade have given notice to the Master Builders' Association for an alteration of rules to come into force in April next. The alterations deal with the times allowed for meals, and the question of apprenticeship.

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 93. **Wed., November 18, 1896.**

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Modern Lithography and Modern Critics. To those in search of light amusement there is nothing more gaily entertaining in its way than the humour the critic provides when he attempts to write upon things he cannot understand. To be just to him, we believe, as a rule, he really tries very hard in his own peculiar way to appreciate the beautiful, but it is denied to him, he is so constructed that fine form, whether in music or in drawing, is absolutely unintelligible to his mind. How anyone with the faintest Artistic sense can go to the present Exhibition of Mr. Pennell's Lithographs at the Fine Art Society's rooms and fail to be charmed with those sunny impressions of Spain, is beyond our understanding. As a matter of fact it is an impossibility, and the critic who so stupidly speaks of them as "scrawls" only reveals the possession of an Artless understanding. He reminds us of the man who, by chance, happened to go to the opera whilst Wagner's Tannhäuser was being performed, and who, after listening a while, wanted to know what "all this noise was about?" It is impossible to be angry with such harmless critics as these, they can only be treated with amused contempt, or as subjects for some idle reflections. We thought, for example, the last had assuredly been heard of the stupid, antiquated criticism directed against Mr. Whistler's work and ways. But no, for our old familiar friend turns up again, in a well known contemporary, and has returned to the charge like a warrior of old. Here again is the same sort of senseless chatter, disguised in serious paragraphs, which we thought dead and buried long ago, with the criticisms of the seventies. It seems as if this particular critic had been asleep meanwhile—his writing indicates something of the sort—and had suddenly awoke, unconscious of all that which has happened since those days, unconscious of the greatness of Whistler's position amongst the Artists of all times, and, the funniest thing of all, unconscious of the unimportance of inartistic Art criticism, for his opinions are given out with a solemn confidence which is most amusing. His reference to the "dull and shallow public" is particularly good; it would never occur to him, of course, that it is an excellent tribute to the merit of these works that the public are *not* "influenced by this kind of thing." (How that sentence *does* remind us of our unmusical friend and Wagner.) Such drawings are the cherished possession of the few—the Artists—and are *caviare* to the general, to those amongst whom is this intelligent critic, who think the photograph the perfection of modern illustration, and who know so many budding geniuses who "can sketch better either than these men can draw." We should like to see some of these sketches in the Architectural illustration of to-day, and are quite prepared to buy up all that are sent to us, with this stipulation, however—they must excel in daintiness of drawing, grace of composition, and reticence of expression the series of lithographs now on view in Bond Street. We are afraid we shall receive but a poor response.



DESIGN FOR ELECTRIC LIGHT BRACKET, BY W. R. COLTON.

Beating the Air. "O, fond anxiety of mortal men! How vain and inconclusive arguments are those which make thee beat thy wings below!" These familiar words were much in our minds the while we were listening to the latter part of Mr. Lethaby's admirable lecture last Thursday, before the Arts and Crafts Society. No one could have better appreciated and enjoyed that admirable discourse than we did. Its Artistic and

literary qualities appealed to us as strongly as they appealed to all, or most of his audience. It was an Artistic treat on an ideal subject, taken from entirely an ideal standpoint, and as such we have nothing but the friendliest criticism to offer. But if it be viewed in another way, if it is judged by the standard the Society itself has set up for these lectures, then we think it shows a certain failure to accomplish the end in view. That end was defined, last Thursday week, by Mr. Cobden Sanderson, in his lecture on "Art and Life," before the same Society, as "the extension of the conception of Art, and more specifically the application of the idea of beauty, as well as of utility, to the organization and decoration of our greater cities." We followed Mr. Lethaby's words closely, anxiously indeed, in order to some practical suggestion on these lines which might be embodied in, or at all events might influence, some of the schemes for "improvements" with which Londoners had been recently threatened. Something, perhaps, which would assist in preventing another such disaster as the mismanagement of so great an opportunity as Shaftesbury Avenue, for example, provided. But "the anxiety of us mortals" was in vain; we came away not a whit the wiser in that way, and, with one exception, scarcely a single suggestion of practical value. Mr. Lethaby's excellent phrases and Artistic arguments concluded with nothing which we could use, as we had hoped to, in these pages in the service of the Society for which we have so much sympathy. It is not words but direct assistance the governing powers of London require in their endeavours to beautify their city. There was nothing, so far as we can understand, save a few unimportant details—such as a better design for a lamp-post—which would tend to brighten the lives of the working men and women of to-day, amongst whom we are glad to count ourselves. The point of view from which the lecturer approached his subject—for the end we all desire—was wrong, and it was wrong because it was taken at altogether too high an altitude. So long as we are ruled by the spirit of commercialism, which has nothing to do with the heights, and is of the earth earthy, so long will such schemes as Mr. Lethaby suggests remain only as unpractical visions on paper. It is impossible not to feel the greatest sympathy, for example, with such a dream of beauty as he proposed for London, between the British Museum on the north side of Waterloo Bridge, and the Obelisk on the south. This avenue may be possible as a great thoroughfare, and as such, we commend it to the County Council for consideration: it is well worth it. But it is *not* possible as "a sort of sacred way, with fountains, trees, and statues," with all cabs and omnibuses and motor cars prohibited. The idea is very beautiful, magnificent indeed, but it is not *war* with the age which has to be fought with far more practical weapons than are to be found in Mr. Lethaby's armoury. His picture of the "sacred way" is too much like a delicious detail from the Divine Comedy to be of use in this commercial and prosaic age.

A VERY extensive landslip has taken place during the last few days at the Undercliff, near Folkestone, through which the South-Eastern Railway runs to Dover. It is the most serious which has taken place there for at least 20 years. Over 50 acres are affected by the slide, and the indications are that, should wet weather continue, other subsidences may take place. Many of the old and familiar pathways have completely disappeared, and in their stead is a quagmire of clay, chalk and water. In some places the land has slipped to a depth of 30 feet, and millions of tons have bulged forward towards the sea.

Views and Reviews.

LONDON STREET NAMES, THEIR ORIGIN, &c.

By F. H. HABBEN.

THIS is a handy-sized book, which might be profitably used as a companion by the city-loiterer, both at home and when wandering (in the *evening* and on *Sundays*) up and down the tortuous and picturesque streets and alleys of our old City. We have, scattered here and there throughout its pages, some interesting bits of philology and etymology, which will whet the appetite for more. The author (or shall we say compiler?) frankly admits the doubtfulness of some explanations, and is not eager to fill the vacuum in all cases; but probably he has not had the leisure to examine all the old maps, views, and documents at first-hand, and thus to verify the derivations for himself; for such a necessary study would have saved him from the mistake of supposing that Vedast and Foster are derived from different sources. It is interesting to observe how many of the origins of the names may be grouped:—*e.g.*, rivers and streams, wells, moors, fens, trees, greens and gardens, trades and professions, markets, bars and wharves (hithe), settlements of foreigners, walls, fortifications and gates, churches and churchyards, monasteries and nunneries, monuments and crosses, saints, worthy citizens, and famous men, livery-companies, heraldry and tavern-signs, use of some important building, and the name or caprice of a house-builder, or of a land-owner. Many of these have been changed, almost out of recognisibility, by the proneness of the average man in the street to convert sounds which have no meaning to him into such as have, *e.g.*, Golding Lane, into Golden Lane, &c. It is much to the convenience of citizens, as well as strangers, that the number of "John Streets," "King Streets," "New Streets," &c., is being reduced by the substitution of other more individualistic names; but we would suggest that, of such a work as this, an Appendix of these changed names, with cross-references, should be an integral part. In this connection, in new neighbourhoods, our County Councils might receive a suggestion (in the absence of historic association, which should always have strong influence in the selection) from the neighbourhood of the orchard-garden at Liverpool (where all the streets are named after fruit-trees), or of the Parc Monceau, at Paris (where painters' names are used), or round the Opera, at Paris (where musicians' names are given). We wish that, in a book like this, which is a *Dictionary*, the head-lines (instead of merely repeating the title of book) had given the catch-words. The Appendices I. and II. should be incorporated with the other part, so as to have only *one* Subject-alphabet; and an explanation of the various interesting old tavern-signs might be included. A Table of Suffixes, *e.g.*, of -bury, -well, -friars, &c., would be a welcome addition, much as the author has dealt with the Inns of Court, &c. We regret that Mr Habben has confined his work to the so-called "City," especially as the whole of London will soon be one great city; and further, as there are interesting streets, &c., in the old parts of Islington, Clapham, Southwark, Deptford, &c. But he may say that this is greediness on our part, and so we leave it.

LONDON STREET NAMES: their Origin, Signification and Historic Value, with divers Notes and Illustrations, by F. H. Habben, B.A.; London: T. Fisher Unwin.

THE THEORY OF PERSPECTIVE,

By CHARLES SWINSTEAD.

PERSPECTIVE is the application of Science to the representing the appearance of an object as viewed from any given point, on any given surface, when the object is either non-existent or not present. If the object be present, then the Art is merely that of model-drawing; and though a knowledge of rules of Perspective may be useful in this, yet it is not a necessity. The representations of buildings and verandahs in the Pompeian decoration have led some to suppose that the Artists were masters of Perspective; but this was not so—their representations were *Model-drawing* and *not Perspective*. The method of representation of an object that is not before the eyes of the Artist and cannot be copied—which must therefore be projected scientifically from drawings of the plans and elevations of it—is the only method that can properly be termed Perspective. There were many treatises on this application of Science, up to and including that by Peruzzi, given by Serlio in his book; but none was, or could be, complete until Ubaldi in his treatise, published in 1600, placed the whole practice of Plane Perspective on a scientific basis. The term—Plane Perspective—is used, because there is a method of Perspective representation on *curved* surfaces, examples of which (dating from the seventeenth century onwards) are seen in Italy. Mr. Swinstead does not appear to have been aware of this branch of projection, as he entitles his books "Perspective" (i.e., the *whole* of the Science). The applied Science of Plane Perspective is employed chiefly by three classes of persons, and for three distinct purposes:—(1) Painters' Perspective, used by pictorial Artists, for interiors (generally); when, owing to the great distance of the vanishing points, the ordinary Architects' method is impracticable; indeed the Painter often uses—not Perspective, but Model Drawing—copying from some actually-existing room. (2) Architects' Perspective, used by them or by the Architectural draughtsman, for the purpose of showing what a building will look like when erected. This is mentioned in Chapter IV. of Mr. Swinstead's two books; and he amusingly says it is called the direct method "to distinguish it from the Scientific method"; but surely it is quite as Scientific as the third or S.K. method; and certainly quicker when the plans and other data are available. (3) The S.K., or measuring-point method, is used by students who are desirous of possessing the certificates of the Department of Science and Art. It is of the third or S.K. Perspective that Mr. Swinstead treats. The smaller, which is Part I. of the larger work, is published at sixpence. It contains 45 pages, with 25 figures; and is the cheapest book of the kind that we have seen. The larger work, costing two shillings, with 74 pages and 71 figures, carries the subject as far as oblique-planes, shadows, and reflections. There is much that is good in these two useful works. The marking—of the successive steps of the Perspective operation by the letters of the alphabet a, b, c, &c.—and of the successive steps of the geometrical proof by the numerals i, ii, iii, &c.—is admirable, and will be much appreciated by users of the works. The use of leaded type is another aid which is judiciously introduced. There is room for more clearness and literary finish; but *clearness* above everything is imperative in a work of this kind, and in some cases a master would be necessary to explain the explanations. More use might have been made of the different kinds of line—the broken, chain, and dotted lines—as well as of the thin, and the thick line—which are so valuable in diagrams. Each chapter is followed by a number of "Questions" from S.K. examination papers, which can be used as a means of testing the progress of those students who are preparing for that special but somewhat limited purpose. Mr. Swinstead is known as an experienced and successful teacher. We hope he will soon give us editions of these works with clearer diagrams, especially in the lettering, even at some small advance in the price, for, owing to want of this, they may be sometimes perplexing, and his work deserves better illustration and a wide circulation among those for whom it is intended.

THE THEORY OF PERSPECTIVE: For the Use of Candidates for the Examinations of the Department of Science and Art, and Art Students in General. London: Simpkin, Marshall & Co. Price 2*s*.

THE Newport Corporation report of the Water Works Committee, assured the Council that the works were progressing very satisfactorily.—Councillor Wilkinson pointed out that the committee proposes raising a further sum of £150,000, which, with the £160,000 already sanctioned, would make £310,000 to be spent upon the new water scheme. The town clerk states that £40,000 of the £160,000 is for the laying of new mains in the town, and he thought that a portion of the sum now asked for is for similar work.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

Sir Christopher Wren and his Work.

AN HISTORICAL AND CRITICAL SKETCH.

By ARTHUR STRATTON.

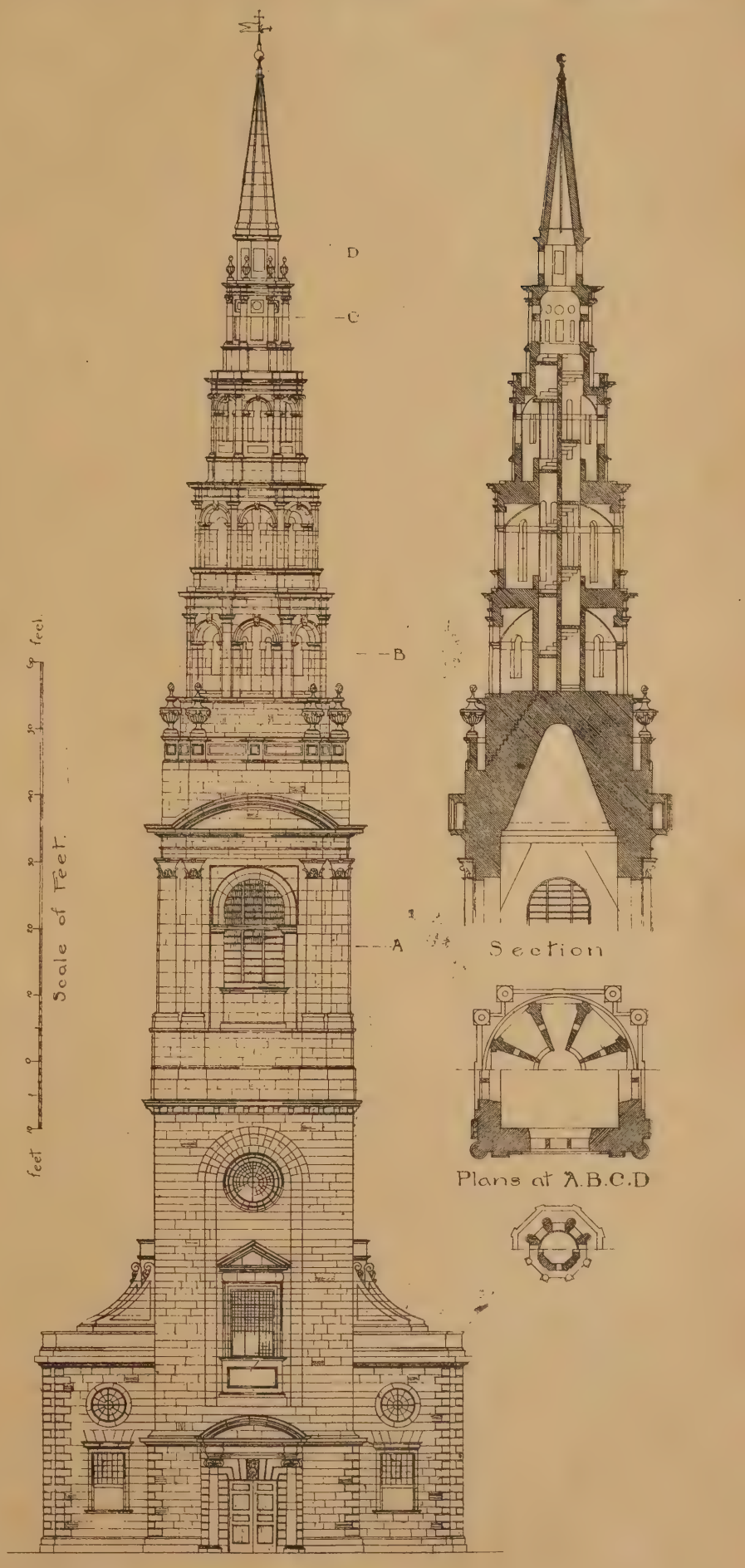
Read before the Liverpool Architectural Society, and published exclusively by the Builders' Journal.

PART I.—THE LIFE OF WREN.

(Continued.)

Another riverside institution of not dissimilar purport now is also closely knit with the name of Wren. Chelsea Hospital, originally a Royal College, founded by James I, was afterwards acquired by the Royal Society, but was abandoned by them again about 1667. Regranted by Charles II in 1680 for the purpose of a Military Hospital, Wren took it in hand in 1682, and by the simplest means possible produced a building which has never failed to charm all who ponder awhile to learn the great lesson which it teaches so well. Besides the many Churches in London which were occupying his attention, the Custom House, the Royal Exchange and Temple Bar, now all removed, were building; nor must the Monument be omitted, which the inhabitants thought fit to erect as a memorial of the great calamity which had befallen the city. It took seven years in all to complete; a long time, but no doubt delays occurred owing to the difficulty in procuring stones of a sufficient size from Portland. Evelyn contended, with reason, that it would have been most fittingly placed at a point where the fire ceased, and not, as is the case, where it originated. It was at first intended that the figure of Charles II should have crowned the summit, but the emblematical flaming vase found more sympathy with the people.

All this while, in spite of his enormous Architectural occupations, Wren never seems quite to have abandoned his favourite science, and he certainly intended to have made use of the Monument in the course of his astronomical investigations. The oscillation, however, at a height of over 200 feet, was found to be so great that the idea had to be given up. One may almost be excused for thinking that he was being drawn into another sphere against his will, and that if the Fire had never taken place he would have devoted himself almost entirely to a study so congenial at all times. The mere fact, however, of his having appeared as Architect before that occurrence points to his liking for the Art, but probably through force of circumstances only did he ultimately practise it to the exclusion of all else. This trait in his character, linked with the fact that his training, using the word as we know it now, or even to some extent as Inigo Jones knew it, was absolutely nil, could not fail to evince itself in his work in after years. A few words must be said of the long list of designs prepared at large which were never executed. Charles II, through his Commons, ordered that a mausoleum should be erected at Windsor, to the memory of his father, "the Royal Martyr," and, on January 30th, 1678, the sum of £70,000 was voted for the purpose. A design was produced, very magnificent according to all accounts—circular, with a dome, after the fashion of the Temple of Vesta, and most ornate both within and without. It met with the King's approval, but nothing more had been done at the time of his death, when other matters pressed forward, and no more was ever heard of it. Yet another undertaking, commenced about the year 1689, fell through. Charles had taken a great fancy to the glorious old city of Winchester, not only for its own sake, but for other considerations, which possibly appealed more forcibly to him. Situated in the midst of peaceful rural scenery, surrounded on all sides by undulating stretches of mossy down, and yet within reach of the New Forest, it seemed to him to be an ideal centre for a hunting resort. Wren produced a



ST. BRIDE FLEET ST.

DRAWN BY ARTHUR STRATTON, A.R.I.B.A.

design for a grand country seat, to be perched on the higher ground overlooking the city, and in an immediate line with the axis of the Cathedral. This was to have been made a special feature of, and the avenue of tall elm trees, which gives the Cathedral so great a charm at present, would have given way to a still longer and statelier one. Works went on apace, and the main wing was roofed in within two years, when a sudden check was given by the death of the King, and none but tentative efforts were ever made afterwards to complete it.

Whitehall must have been full of gloomy recollections, and, after the experiences of Inigo Jones, can scarcely have had a favourable prestige for an Architectural successor; whether Wren ever looked for great things there is doubtful, but it is certain that his designs, produced about 1697, for its completion, shared no better fate. That the talents of such men should have been so recklessly imposed upon is no credit to the times in which they lived. In the case of the first, it is little short of a national disaster that his life should have been thus frittered away; in the case of the second, it is true that with such a glorious list of completed works the omissions are not of such consequence, but it points to a tendency, so fully developed in our own day, to think lightly of and treat with actual indifference the claims of the Architect for support and consideration. The year before the King died another public appointment was conferred upon Wren; already Surveyor-General, he was now made Comptroller of the Works, a post which required much attention, and which brought with it many harassing little disputes, and the handsome remuneration of £9 2*s.* 6*d.* per annum. His stipend for the rebuilding of St. Paul's and the city Churches had already been fixed at £200 per annum; a mere pittance, conclusively showing that he worked with the highest motives that a man can work for—the ennoblement of his Art and the welfare of his country, and not just for the sake of his own advancement and the glitter of his name.

Although in Charles he certainly lost a good and tolerant patron, he was so handicapped and under such strict supervision that at any rate as regards St. Paul's his decease must have come as rather a relief. Undoubtedly he had quite exceeded the limits of the license granted him to depart from the approved design in small matters, but the work was not far enough advanced for any but a practised eye to detect the differences, and so no notice seems to have been taken of the alterations made during the progress of the works.

James II. was careless of such matters; he was no patron of the Arts, and his short reign passed away without leaving any monumental works to record his name. Restorations and rebuildings were going on all around him, and he issued a commission for continuing the works at St. Paul's, but little heed did he pay to them, and at least cannot be blamed for interference. Wren now practically had a free hand to follow out his own conceptions, so long as he was mindful of the public exchequer. On the other hand, one of the first acts of William and Mary on their accession was to commission Wren to add extensively to Wolsey's Palace at Hampton Court, to fit it for a Royal residence. The delightful red brick wing and the very Palladian design of the front facing the Home Park and enclosing the Fountain Court, executed between the years 1690 and 1694, are deservedly well-known and have met with better treatment than his Kensington Palace, erected about the same time for the same Sovereign.

After being released, as it would seem, from the ties imposed upon him whilst holding the Presidency of the Royal Society, Wren appeared as a Member of Parliament; first, for a borough in Devonshire, and later, in 1689, he sat in the Convention Parliament, which ratified the ascendency of William and Mary, as a representative for the borough of New Windsor. Nowhere is any mention made of his political opinions, but considering the influence of his father, who was a staunch Royalist, and the school in which he was brought up, we may safely conclude that he too was a firm supporter of the Crown.

These last years of the seventeenth century must have seen the finishing touches put to many of his works. About forty of the Churches in the city of London were either rebuilt or were well on the way to completion. Many a tower had risen again above the dull rows of bricks and mortar which everywhere lined the streets. St. Mary-le-Bow, the queen of them all was finished, and the graceful little St. Martin's, on Ludgate Hill, was already waiting for the great giant whose strength it was intended to emphasize so keenly by inviting comparison with its own subtle forms. Productions of his own mind must have met his eye at every turn within the city walls, gladdening his heart no doubt, but ever kindling bitter reflections at the recollection of the opportunities which had been denied him, of an ideal becoming day by day more and more remote from realization. St. Paul's had been steadily progressing under his immediate supervision, but records are scarce, and only a glimpse of his doings there is afforded us from time to time. The Coal Tax, which was not repealed till 1700, still largely helped to defray the enormous expenses, which up to 1684 alone, had amounted to £100,000. In 1686 the old west end was entirely cleared away, and two years later the new choir was ready for roofing. The Treaty of Ryswick afforded an excellent opportunity to throw it open on the Day of Thanksgiving, December 2nd, 1697. The morning chapel, which is said to have caused so much discussion, was next opened, and for a long time nothing is hinted at beyond the interest which was fast kindling and the speculations which were becoming rife as to the effect of the great dome now towering aloft. How should it be covered externally was soon the question, with copper or with lead? Wren seems to have inclined to the latter, but there was much argument in 1708 on the subject. It was probably on the score of expense that lead was finally decided upon at a cost of £2,500, or some £600 less than it would have cost to execute in copper. We have no cause to regret the beautiful silvery hue of this material, lending itself more readily to the London atmosphere than the uncertain effect of copper under similar conditions.



ST. MARTIN LUDGATE HILL.

DRAWN BY ARTHUR STRATTON, A.R.I.B.A.

Another change of Sovereign had in the meanwhile taken place, and Queen Anne's reign was destined to give much encouragement to the Art of Architecture. "The Act for Fifty New Churches" was passed in 1708, and Wren was placed on the commission to superintend their erection. Apart from the fact that so many years of hard and unappreciated labour were fast telling upon his physical strength, he could hardly in his official capacity have been eligible to carry out any himself; accordingly he contented himself with addressing a lengthy letter to his contemporaries, in which he gave them such advice as his exceptional experience enabled him to do with all discretion.

Living in comparative retirement at Hampton Court, which he loved for its quiet, peaceful situation beside the glistening Thames, he paid frequent visits to Westminster Abbey as well as to the new-born Cathedral. The busy throng of workers there at last showed some sign of cessation in their labours; the din and clamour gradually melted away, leaving the mighty structure in all its fulness of repose and strength, most forcibly shadowing forth the approaching end of its master-builder, whose long life of turmoil and strife awaited now its consummation at the hand of death. But both were yet to be harassed and maltreated at the hands of a ruthless and ignorant monarchy. There was nothing now in which the narrow-minded commissioners did not endeavour to thwart him. At first they insisted that the railing which Wren put round the precincts of the Cathedral was a "poor, mean iron rail," and they themselves substituted a heavy cast-iron one, which sufficiently obscured the lower portions of the structure to materially affect its proportions. This alteration took place about 1711, or shortly after the last stone of the lantern crowning the cupola had been laid by his son Stephen and Strong, his master-mason, in his own presence. Then arose a quarrel about the balustrade. Wren never intended that these should have been more than a blocking course, and he protested most strongly, declaring that such a feature would be contrary to the principles of Architecture as he understood them. He admitted that something of the kind was admissible in Gothic work, and that "ladies think nothing well without an edging." On the whole it is difficult to see the force of his argument. This was in 1717, and

the treatment which was now accorded him was only in any measure equalled by the gross insult and injustice proffered him a few years previously with regard to his stipend for carrying out the whole of the city work.

As far back as 1697 a clause had been inserted in the Act for the completion and adornment of St. Paul's, "to suspend a moiety of the Surveyor's salary until the said Church should be finished," as the opinion was becoming general that Wren was prolonging the work for the sake of his paltry £200 per annum. He protested again and again in vain that the delay was no fault of his, if there can have been much delay at all! He petitioned the Queen later, for his salary was getting in arrears, and, being successful in the end, it was paid him in full on Christmas Day, 1711. It seems almost incredible that such insults should be showered upon him at the crowning point of his life. He had lived to see five Sovereigns, and had passed through the troublesome years of the Commonwealth with still no stain upon his honour when the climax was reached, in his dismissal from office. It must have come as a great relief to him, nevertheless, when King George, on April the 14th, 1718, to his everlasting shame, was induced to supersede his Patent in order to confer it upon a mere court favourite in the person of Benson.

Wren, now free from taunts and disrespectful treatment, rose high above his ignoble persecutors, and his calm and dignified demeanour show us, all the more plainly, what a truly noble character, what an ideal citizen London had driven from her midst. Without a murmur the good old man, full of righteousness and honour, betook him once more to his meditations, in a few short years to pass away and to be laid within the walls of the one temple which had cost him so much—his very life soul's work. He died at his house in St. James's, on February 25th, 1723, in the ninety-first year of his age, when on one of his periodical visits to London.

"Thin, and low of stature," is a sufficiently full description of his personal appearance. We can imagine what force of character must have emphasized his every gesture, what purity of thought must have stamped his every word. Well has it been said: "His knowledge had a right influence on the temper of his mind, which had all humility, graceful modesty, goodness, calmness, strength, and sincerity of a sound and unaffected philosopher."

THE WORK OF WREN.
SECOND PART.

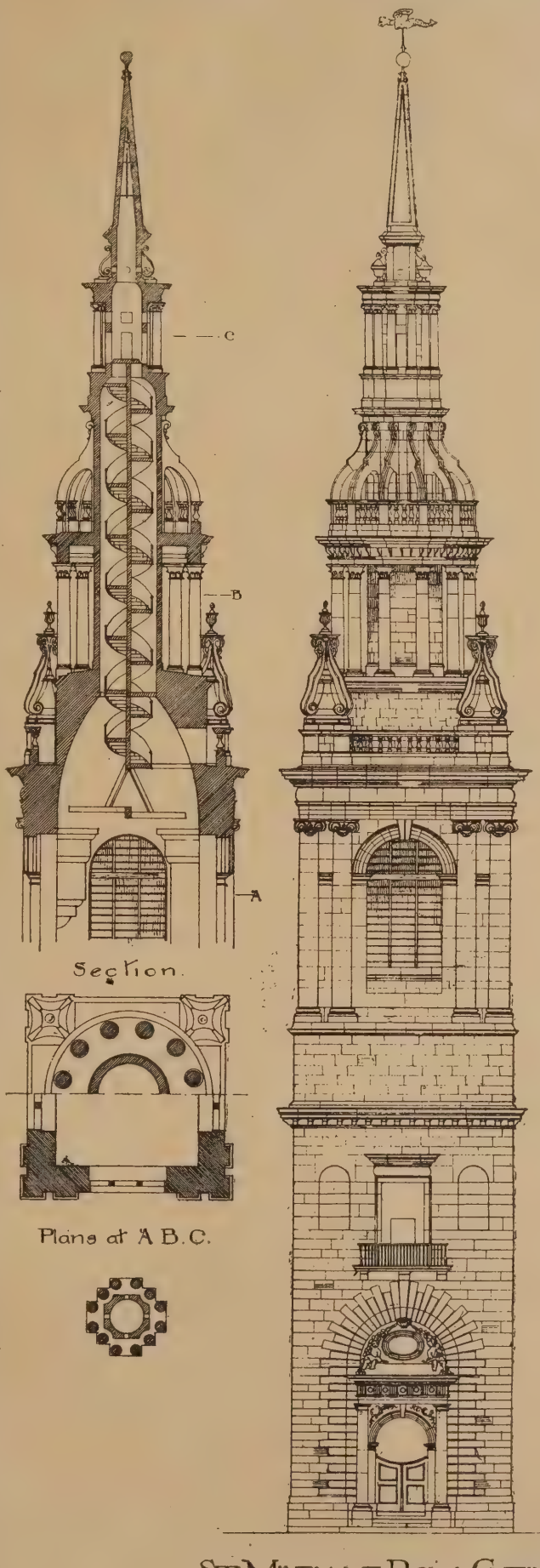
IT was as a prime mover in the introduction of Palladian modes of design, which characterised the true Renaissance in England, that the influence of Inigo Jones was mainly felt. Wren did not willingly acknowledge his obligations, but he must be considered as the direct successor of Inigo Jones, not only in the school of Architecture founded by him, but also in the methods in which that school worked. These methods were far removed from those of the mediæval craftsmen who took part in the actual execution of their designs, and by Wren's time were so remodelled that we may consider that he worked under very similar conditions to ourselves. Individualism was henceforth to be deeply associated with Art, and it was a very potent factor in the work of Wren.

Profiting by a study, as complete as it was possible for him to make it, of all that had gone before, he nevertheless stamped everything with his own genius, and left it essentially English. The use of scale drawings and models, fully established by this time, was indispensable to him, and already the race of men who contract to carry out other men's designs absolutely from such drawings and models had sprung up. The knowledge of classic forms was fast increasing, but Wren practically had no traditions to work upon. He found plenty of mechanical labour at his command, but workers in the Arts accessory to Architecture had often to be sought out diligently. It was easy to build a wall, but to clothe it was often a serious matter. Accordingly, except when special facilities offered, Wren gave up the attempt, and borrowing still from the ancients, fell back upon proportion and beauty of line and balance of mass as a means to a nobler end. His mathematical skill told him that such properties must be at the root of all good design. By making everything subservient to them he produced works which were readily executed from drawings by the ordinary artizan of the time, but which, nevertheless, always rank high as works of Art. When he came across such men as Grinling Gibbons and Tijoue, we have ample proof that he gave them every scope for the unfettered play of their genius; but it is all characteristic of his work, that although its value was greatly enhanced by their decorative treatment, yet had their enrichments never been applied, the Architecture would still have remained intact, and still would remain intact were they swept away.

Wren, of all men, best realised that an Architect should ever strive after an ideal, but that it is most expected of him that he should achieve the possible. His genius owed much to his irrepressible faculty of painstaking; he never spared thought, but lavished it as freely upon the smallest undertaking as upon the most pretentious.

Art, in fact, to him was a reality, he deduced the beautiful by a system of logical reasoning. The inspirations which had produced and the sentiments which prevaded the Art of the religious enthusiasts of the Middle Ages, could only be seen by him through a deep mist which nothing but an innate reverence for the works of the past helped him to pierce. His constant reliance upon his scientific knowledge has sometimes been considered sufficient ground for accusing him of being an Engineer rather than an Architect. Such an accusation, we may feel sure, only reflects upon the minds of his accusers, who could in no way distinguish between mere construction and construction beautified. If sometimes his Architecture falls below a certain standard usually associated with his name, it should only be a wholesome reminder to us that he, too, was human. In the non-acceptance of his scheme for the laying out of London after the Fire, as well as in the many obstacles placed in his way throughout his career, we see plainly that he worked, for the most part, under very great difficulties in no degree dissimilar from those which beset the path of the more modern practitioner.

The principles which underlie his designs throughout are distinctly laid down in his few Architectural treatises which remain to us. They resolve themselves into a few golden rules, safe for all time. "There are two causes of beauty," he says, "natural and customary. Natural is from geometry, consisting in uniformity and proportion. Customary beauty is begotten by the use of our senses to those objects which are usually pleasing to us for other causes, as familiarity or particular inclination breeds a love for things not in themselves lovely." "Geometrical figures are naturally more beautiful than



ST MARY-LE-BOW CHEAPSIDE.

DRAWN BY ARTHUR STRATTON, A.R.I.B.A.

other irregular." "The square and the circle are not beautiful next the parallelogram and the oval." He attached very great importance indeed to the study and application of Perspective. To quote again:—"An Architect ought to be above all things well skilled in Perspective." "The Romans guided themselves by Perspective in all their fabrics, and why should not Perspective lead us back again to what was Roman?"

These few aphorisms, chosen at random from the "Parentalia," a work compiled by his son Stephen, suffice to indicate the main channel of his thoughts, and to give some idea of the basis of his Architectural creed.

He was particularly fortunate in having such trusty and capable workmen under him as Strong, his master-mason, and Jennings, his master-carpenter; whilst in Grinling Gibbons and Cibber he had with him always the two most accomplished sculptors of the day. They were both foreigners, the one a Dutchman and the other a Dane, but so great was their influence that they created quite a school of carving among Englishmen, still highly esteemed for its fanciful and luxuriant design and marvellous execution.

So much has been said, and so much has been written, from time to time, about the group of Churches, and about the Cathedral of St. Paul, to which they one and all owe deep relationship, that in a general review, such as this purposes to be, time will not allow of more than a few critical remarks and a few heartfelt words of admiration.

In considering, firstly, the construction of St. Paul's, we must uphold the rational though much maligned treatment of the central dome. Wren boldly accepted the fact that the same domical covering could not be made of pleasing proportions both internally and externally, and solved the problem before him with great common sense and consummate skill. Whatever scruples may exist in the minds of many as to whether deception is practiced by the triple arrangement or no, all must agree that the result is one of the most perfect domes, at least externally, ever erected. For his own part, Wren contended that a lead-covered roof over a dome was no more deceptive than an outer roof over a vaulted nave, and apart from sentiment he felt justified in resorting to such a method of gaining increase of height and bulk, which the people clamoured loudly for, seeing that they had been long used to the lofty towers and spires of the mediæval Cathedrals.

The flanking walls of the nave are possibly open to some objections: they are nothing more than huge screens concealing the clerestory windows, the flying buttresses which support the main vault, and the roof covering over it. We must remember, however, that it was part of Wren's teaching that in buildings other than those of a "private" nature, "no roof can have dignity enough to appear above the cornice, but the circular," *i.e.*, spincal, and most certainly, his design required the solidity afforded by the extra mass and severity of line so easily obtained.

The use of the double order was necessitated by very practical considerations; stones could not have been obtained from Portland, or from any other suitable quarry in England, of sufficient scantlings to carry out the portico and other portions in due proportion, had one giant order been adopted.

Such objections as these only tend to strengthen the claims which the building has to greatness, but perhaps the two faults which might have been most easily remedied originally are the most flagrant. The Chapels at the west end may have been forced upon Wren as is so often stated, but without doubt they give to the plan of the Cathedral a proportion and beauty of form which it would much have lacked without them. They also were the means of procuring the grand treatment internally, in the shape of the narthex, or vestibule, which is so impressive on entering. Externally only are they to be regretted; the mistake is that the outer walls of the Chapels are in the same place as those of the Campanile, whereas had they been recessed, even so slightly, the vertical lines of the Campanile would have been unimpeded, and much more interest would have been imparted to that portion of the structure as seen in perspective. The one eyesore, however, will be found in the treatment of the oblique sides of the octagon carrying the dome; it is hard to imagine how Wren could have perpetrated such a medley, but one instinctively shrinks from too freely criticising such a masterpiece, and we must look upon it rather as a freak of design than as a deliberate blunder.

Mosaic was originally intended for the decoration of the dome and roofs throughout, but the privilege of fulfilling Wren's desires has been left to our own day, and slowly but adequately is it being done.

The organ, too, after more than one move, now stands in the most suitable position and probably in the one originally allotted to it. It stood for years upon a screen at the entrance to the choir after the fashion of the mediæval Cathedrals, but the screen and the columns supporting it beneath on the crypt are clearly an insertion not provided for at the first.

The columns remain in the crypt, but the organ with its screen was removed in 1860.

In St. Paul's Church, through no fault of Wren's, the one chance of erecting a typical Protestant Cathedral was thrown away. He planned to meet the requirements of the day, which necessitated that a Church should be as much a place for preaching in as anything else.

In 1603, James I. was asked, in the Millenary Petition, that none should be allowed ordination unless thoroughly competent to preach, and enough of the Puritan spirit yet remained to exert considerable influence. The Churches which had been destroyed by the fire were of one accord of the mediæval type, adapted to a certain ritual, and when the necessity arose for rebuilding them under the new dispensation, curious anomalies arose.

In very many instances, for practical reasons, Wren thought fit to build upon the old foundations which then dictated the plan minutely. For the most part the sites allotted to the Churches were of the most irregular shapes and sizes, and many were the problems presented to Wren, and he always strove to ingeniously solve them and generally brought every foot within his roofing area. These were the main influences to govern the type of plan, and it is most interesting to notice the variety which he evolved; considering that they are a group of buildings erected by one man for one object they are probably unique in this respect. He never lost sight of the requirements of "the preaching house," with its large central space, and when at liberty to make a choice, he adapted either the stunted Basilican plan, which is arranged along a central axis, or the Byzantine plan, which is arranged about a central point. It is quite impossible to draw hard and fast lines between certain types, but, of the city Churches, 38 may be considered to belong to the first mentioned class, whilst nine belong to the latter.

The mode of roofing grew out of the necessities of each case, and it is in the manipulation of domes and vaulting surfaces that the one charm of the interiors is often to be found. The fact of their being often composed entirely of lath and plaster must not, in fairness to Wren, be allowed to detract from their merit. It was not his fault that a more noble construction was not employed.

The body of the Church is often uninteresting and the impression conveyed is far from elevating; depressing monotony is often avoided solely by the exquisite handling of the fittings and the delicate carving which bedecks them.

To quote a recent writer, Sir Walter Besant, "The Churches were what is commonly called 'ugly,' *i.e.*, they were built by Wren or by imitators of his style. The people sat in pews, each family by itself. All the Churches had galleries, and the service was conducted from a three-decker." These remarks, which apply fully enough to many of the pewed and galleried Basilican Churches, are altogether out of place with regard to those designed on the central area plan, or those in which the dome, or some modification of it, is the dominant note. It is impossible to describe in words the charms of St. Stephen's, Walbrook, the best of them all. By simple means an unrivalled variety of perspective and beauty of proportion is obtained; a work which alone would have established its designer for all time. Canova said, that if ever he revisited England, it would be to see St. Paul's, Somerset House, and St. Stephen's, Walbrook. The treatment so successful here and carried to such great length at St. Paul's, of supporting a dome on eight pendentives, is also found at St. Mary's Abchurch, and St. Swithin, Cannon Street; but wherever the necessities of the case demanded any other figure than the octagon, Wren freely evolved it. St. Benetfink and St. Anthony, Watling Street, once stood as admirable examples of geometrical skill applied to Architectural design.

It is in the towers, with their great variety of superstructures, that the living charm of the city Churches lies. Owing to the irregular crooked streets, and the chaos of brick walls everywhere lining them, Wren knew that in the majority of cases it would be simply throwing work away to lavish detail upon the lower portions of his designs, and he accordingly concentrated his whole attention upon the upper stages of the towers and often surmounted them with elegant lanterns or spires of wood or stone. He felt that the one opportunity left him of giving individual interest and at the same time redeeming the city from the commonplace was here. It was a grand opportunity, and putting forth his whole strength he made them burst into every exuberance of design characteristic to a remarkable degree of the versatility of his own genius. Before his time the highest development of the tower in England was a square surmounted by an octagonal spire, tapering to a point and broken only by lucarnes and crockets. The much-felt awkwardness at the junction of the two forms was slurred over by the introduction of angle pinnacles of all sorts.

The ancients, content with the tremendous grandeur of horizontal lines, had never striven skyward. Wren, in spite of his strong classic predilections, could never free himself from the secret workings of the Gothic Art of his native land within him: seizing upon the perfection and avoiding the defects of the works of the tower and spire builders of the middle ages by a stroke of genius, at one step he advanced far beyond them. He did not return to a Romanesque style, but taking the fully developed Gothic one as a basis, he entirely re-modelled its detail without attempting to obliterate its unmistakeable origin. It must be claimed for him that by the free use of Roman detail and constant reliance upon his mathematical skill, he evolved an entirely new epoch in the history of spire building, as beautiful now as it is strikingly original.

I will show you some typical examples of his tower and spire treatment in conjunction with the façades to which they belong. It will be noticed that the vertical lines are always carried down to the ground, a consideration too frequently overlooked in after years.

In St. Mary-le-Bow, a succession of cleverly designed stages rise one above another in perfectly natural sequence, altogether making a composition absolutely unrivalled for elegant flow of line and exquisite proportion of solids to voids, whilst a glance at the section exhibits the constructive skill displayed. St. Bride's spire lacks the spontaneity which gives the great charm to St. Mary's. It is more a result of deliberate calculation, and owes its success to the graduated rhythmical repetition of one composition.

In St. Vedast, with great cunning, are solids of contrary curvature superposed, producing a daring and effective play of light and shade quite unique. St. Martin's especially must not be spoken of without reference to St. Paul's. One prevailing idea underlies the whole group of these spires, each is related to one or other of the remainder, and directly or indirectly leads up to the great centre-piece. Nowhere is this so strongly marked as in the case of St. Martin's, midway up Ludgate Hill. From base to summit it is one succession of graceful profiles and delicate proportions, rendered even more graceful and more delicate by the forced comparison with the grandeur of the mass hard by. In spite of the just claims of these fifty or so towers to a foremost place amongst the Art treasures of England, they are day by day in peril and already has their number been sadly diminished through pure vandalism and gross utilitarianism. Their construction, sound from the first, has stood the ravages of time unharmed; they defy all still but the ravages of men.

The Scale attached to the illustration on page 227 is applicable to those on pages 228, 229, and 231.

(*To be continued.*)

NEWCASTLE will celebrate the 60th year of the Queen's reign next year by an electrical and engineering exhibition, which will be designed to illustrate the progress in these and other leading branches of industry since 1837.

"THE ART LIFE."

ONE BY ONE FOR JUDGMENT AT THE ACADEMY.

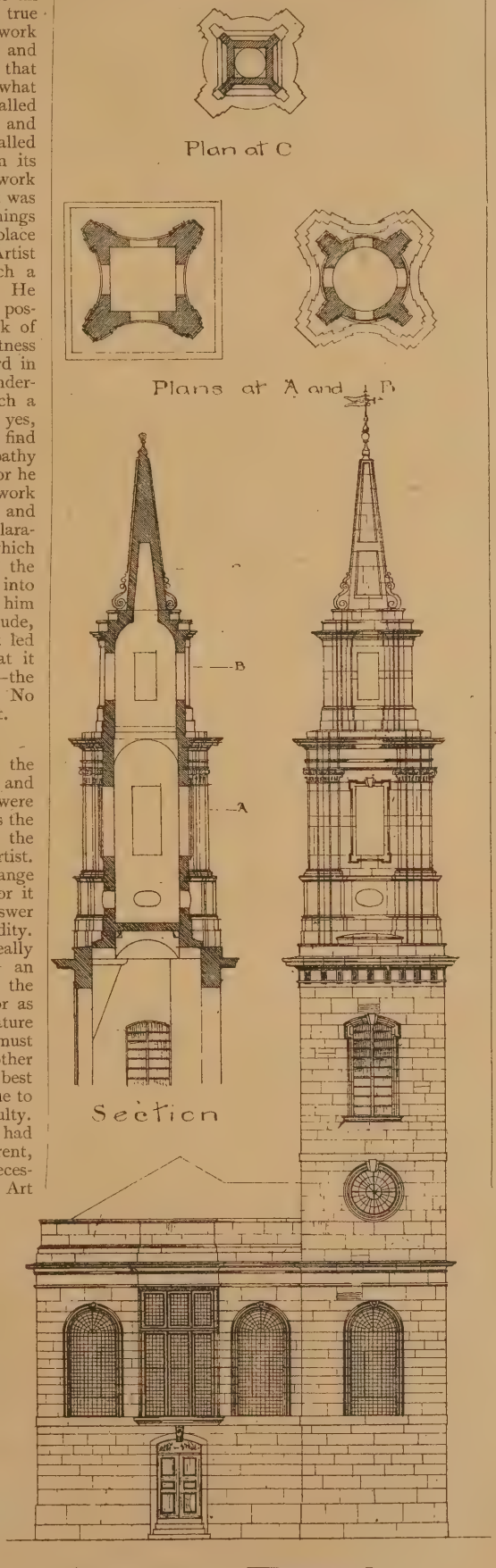
AT the Birmingham and Midland Institute, last week, Professor Hubert Herkomer, R.A., delivered an address upon "The Art Life," which contained many interesting personal reminiscences. Professor Herkomer said that all true Art workers loved their work, and true enthusiasts loved to talk about Art. As work could not be done without enthusiasm, and enthusiasm naturally led to talk, it followed that Art workers must necessarily talk Art, or what was more expressively though colloquially called "shop." What palace would take its place, and what sanctuary rival the sanctuary they called "shop"? And let them take the word in its broadest meaning; to mean not only the work done by the worker, but the place in which it was done. For so closely were the two meanings allied in the life of an Artist, that man and place became one. Unhappy was the itinerant Artist who could not make himself one with such a sacred asylum. And what of the Artist? He could think of no greater honour for man to be possessed of than the power to create a great work of Art, for this was the power to recall the greatness of Nature, to interpret the veritable God-word in Nature by means of a language that was understood by all "seeing" mankind. Was such a worker not to speak of his work? Assuredly yes, for the storm and stress of such a gift must find collateral help in the touch of human sympathy to its possessor, through speech to his kind, for he must have a mental friend. Man and work became inseparable, hence the words "work" and "work talk" became synonymous. The declaration of "yourself" and "your work" for which he pleaded, and which was understood in the term "shop talk," need never lead the Artist into social "*gaucheries*." He would not have him adopt the alternative of silence and solitude, because this alternative was not safe, for it led the Artist to such extreme sensitiveness that it made him unfit for his real position in life—the position of a man belonging to mankind. No man belonged to mankind more than an Artist.

IT WAS NOT IN THE SCHOOLS

that the Painter learnt his Art, but with the people. From these he must not separate, and could not displace himself. Few workers were so quickly cheered and so quickly depressed as the Artist, but likewise to no other worker was the red-hot "shop talk" so welcome as to the Artist. The whole Artistic temperament was a strange quality of the brain; but how did it arise, for it was a combination of many qualities? To answer that they must knock at the door of heredity. He thought it was not on record that a really great Painter had a son who also became an equally great Painter. It seemed that in all the laws of Nature progression was necessary, for as soon as a culminating point was arrived at Nature seemed to "shut up shop," and say they must begin all over again but start from some other point. But although this would explain the best chances for successful offspring, it gave no clue to the production of the Art taste and Art faculty. It had often been seen that where there had lingered the love for Art in one or other parent, it had culminated in a child possessing the necessary gifts to succeed in Art. That a love for Art may have existed a long way back in a family was exemplified in the fact that they often found a boy born with full Art genius of apparently impossible parents. It was no small matter when such a creature came to life in surroundings that knew nothing about Art. Invariably

ARTISTS CAME FROM THE MIDDLE CLASSES;

hence the greater difficulty of his surroundings to understand this queer upshot, for the parents might be, and mostly were, in humble circumstances, and were seldom guilty of having knowingly given way to Art. But by an inscrutable law some combination had taken place in that child which constituted the Artist. Professor Herkomer described the student days and early career of the young Artist. Few Art student or young Artists of to-day, he said, failed to attend certain Art functions or social gaieties because they had no dress suit; yet in his day, may be, one student in a dozen possessed such a thing, and that one suit was not infrequently worn in turn by several comrades. But, strange to say, in those early days, and in England, the actual respectability of the calling was mostly doubted by the very middle classes which mostly produced the Artist. That it meant starvation in the eyes of many worthy people was not to be wondered at. Professor Herkomer narrated through what a series of accidents he



ST. VEDAST FOSTER LANE.

DRAWN BY ARTHUR STRATTON, A.R.I.B.A

sold his first picture. The question of selling the picture before it went to the Academy occupied his thoughts, but how to get to work was not quite clear. Of dealers his knowledge was limited to one occasion, when, two or three years previously, he took some water-colours to a man in Broad Street. He looked at them, and showed him the door without a word. Besides, his first picture was too large to take round, and he knew no dealer would come to an unknown Painter. One day he happened to be going to Piccadilly in an omnibus with a frame-maker with whom he was on good terms—having always paid him for the hitherto ordered water-colour frames—and they fell naturally to talking "shop." A gentleman sitting next joined in, and he was invited to see his oil picture. He accepted the invitation, but asked to be allowed to bring a friend. They both came, and number two gentleman asked permission to bring his friend, and the same boundless invitation was accorded. To shorten the story, number three bought his picture, and gave him a commission to do another. Here was a chain of circumstances that would have been entirely lost had he not grasped the initial link. Success was the ever-present thought in the Artist. It started him; it encouraged him on his way, and its accomplishment was the real balm to his old age. Let it be understood, however, that that reserve power in man, which stubbornly supported an inward conviction, was a commendable, and, he would say, indispensable self-assurance. There must be nothing negative about an Artist. He must affirm. If the affirmative did not touch a chord somewhere, it was barren. The approval of a minority was all that was required. It was not infrequently all that was meted out to those who finally conquered the world. To show how little the Artistic temperament had changed, he suggested how the masters of the past could be placed on modern pedestals with but a change in detail. But if types had remained, surroundings had changed. The increase of exhibitions, for instance, was one of the terrors of the age. Every dealer had an annual show. The alarming increase of Artists had, of course, necessitated an increase of room for showing work; and the increase of quantity had been about 300 per cent. Abnormally large prices prepared dangerous ground for the living and the dead. The long depression in trade had caused much suffering among Painters, for they had "worked up" to the unprecedented times of plenty, believing them to be permanent. Little by little the prices were raised and raised, until they had reached a dangerous pitch. Then came the change, and the Painter was unwilling to change his prices with the change of times, with the result that he was in many cases dropped altogether. In the successful times he had prepared no bridges for escape, and when the blow came he had no change of weapon to fall back upon—no side Arts. It would be a poor general who went to war with so little forethought of possible disaster. Yet a

PROFESSIONAL LIFE WAS A FIGHT,

and often a hard one, necessitating all the forethought, circumspection, and daring of the military man if it was to succeed. As the prominent dealers found their hands full of modern works they could not sell, they turned their attention to the dead, and it soon became a fashion to give high prices for old and past masters. But, the supply being limited, attention was again, with the revival of trade, turned towards the living workers, but with this difference, that the prices began again where they began when the great days started, and not where they left off. Notoriety in former days grew more out of the studio than by independent effort. How picture exhibitions, as we had them now, originated he did not know, but he knew that notoriety nowadays began and ended in the exhibition, and the Artist must take the plunge sooner or later. It was, and always would remain, a shock for the Artist to see his work crowded together with others—frame upon frame, subject upon subject, a confusing, eye-deadening, heart-aching, back-aching invention, torture alike to public and to Painter. Professor Herkomer described the method of procedure as to the judging of pictures at the Royal Academy, and said that the Council of the Academy consisted of ten members. They sat in a semicircle, with the president in the centre, and the pictures were brought in

ONE BY ONE FOR JUDGMENT.

During the first week in April the weather was

often very trying, and the members sat with mufflers, thick overcoats, and rugs—doing what he could only call heavy penance for their sins. (Laughter.) Imagine sitting from ten in the morning to six o'clock in the evening, with one hour for luncheon and twenty minutes for tea, seeing picture after picture, and this for eight days, during which they looked at perhaps twelve thousand objects, purporting to be works and objects of Art. Was it human to expect the eye to keep its clearness and the mind to keep its attention and power of judgment? Still, it was with the utmost conscientiousness that the members of the Royal Academy fulfilled their duty. It was easy for the outsiders to cry "Justice, justice." They got it, so far as human effort so strained could give it. But out of ten men there might be great divergence of opinion, and then the president took the vote on a picture by show of hands. There was no question when a striking picture came before them; the difficulties arose with the works that were good, but not excellent, and they formed the bulk of the works sent in. And so few were the excellent works sent in that the Council only actually accepted an average of seventy or eighty pictures, which, of course, must be hung. The rest were either made "doubtful" or rejected right off. There may be two thousand or more made doubtful, and these were dealt with by the five members of the Council, called hangers. He related how, at the age of twenty-five, he sent his picture to the Academy, and with what anxiety he awaited the decision of the Council. Five days after the picture was sent in the post brought him, not a letter of rejection, but two letters from two members of the Council. He was watching by a sick bed when the letters came, and he was not ashamed to say that when he read them he broke down. Fully equipped, sound in body and mind, free to exercise every moment's desire for Artistic experiment, free from all cares of bread-winning, possessing all the honours within his reach, his name a household word, this was the life of the successful Artist—a life second to none in the world for its comprehensiveness, its joy in work, and its immortality in work. Artists on the whole now strove for noble lives more than they were wont to do at any other period of Art's history. In the present time Artists had been upbraided for too great a striving after grand houses and a fashionable life; upbraided for looking at their Art too much from a commercial point of view. Artists as a class might claim generosity of heart as their most strongly-marked characteristic.

A STAINED-GLASS window is to be placed at the east end of Silk Willoughby Church, near Sleaford. The cost will be about £400, of which sum £280 has been subscribed.

MR. ALBERT W. LAWSON, of the City Survey's Department, Manchester, has been appointed surveyor for the borough of Rawtenstall.

AT a recent meeting at the Church House, it was resolved "That the memorial to the late Archbishop of Canterbury shall include, primarily, an effigy of the Cathedral of Canterbury, and that the further efforts of those interested in the memorial be directed towards the completion of some part of Truro Cathedral."

FOR the school premises connected with the New Road Presbyterian Church, Woolwich, the London School Board has made an offer of £3,000, which has been accepted, with the approval of the Presbytery. The money will be applied to the erection of new schools for the Church on another site.

NEW premises have been opened for the Liberal Club, at Beverley. On the ground floor are rooms for the caretaker, a room for the secretary, and a reading room, and a lending library. At the rear a brick structure has been erected to form a billiard room and a card room. Special attention has been paid to lighting, ventilating, heating, and furnishing.

A STAINED-GLASS window has been placed in the east end of the Parish Church of Atherstone. The window has cost over £450. The lower central light represents the Nativity, and on either side are portrayed the Annunciation and the Presentation in the Temple. Three upper central lights delineate the Crucifixion, and, on one side, the figure of the Prophet Isaiah represents "Prophecy," whilst, on the other side, St. Paul figures as "Testimony." The upper part is filled with figures of saints and angels.

THE GREAT MOSQUE OF THE OMEIYADES, DAMASCUS.

By MR. R. PHENÈ SPIERS.

AT the R.I.B.A., on Monday night, a paper on this subject was read by Mr. Spiers, who said that the principal cause which led him to take up the subject was that, when travelling in 1866, he was accorded a special permission to draw inside the mosque, and had, therefore, in his possession, illustrations of the great dome and other features hitherto unpublished. The destruction of the mosque by fire, on the 14th October, 1893, led him, in February in the following year (when first he heard of it), to take up the subject in order to solve, if possible, the problem which has exercised the minds of many Archæologists, viz., the determination as to what part, if any, of the mosque belonged to the Church of St. John, commenced by Theodosius in the middle of the fourth century (who utilised the remains of a Roman temple), and enlarged by Arcadius, his son, at the beginning of the fifth century. The paper was virtually written two years ago, but the preparation of the plan, elevations, and sections was delayed by want of further information, now partially obtained from additional photographs. Mr. Spiers first described the mosque itself, the main building of which runs east and west, and is built in between two ancient towers at the south-east and south-west corners respectively.

THE MOSQUE MEASURES

internally 446 by 123 feet. Exactly in the centre is an immense transept running north and south, with a dome over the crossing and on each side, viz., to the east and west; a nave and aisles, or, more correctly speaking, three aisles (for the divisions are of equal dimensions), 180 feet long. The north and south transepts have horizontal ceilings in wood carried on beams supported on corbels, all richly carved, painted in brilliant colours, and gilded. The dome on the crossing is carried on squinch pendentives; the nave and aisles to the east and to the west of the transept are divided each by an arcade of eleven bays, with columns taken from some more ancient edifice raised on octagonal pedestals and surmounted by Roman capitals and Byzantine dosserets. Above the arcades the walls are pierced with semicircular arched openings. Similar openings of the same size run the whole length of the mosque in the north and south walls, being there fitted with pierced arabesque designs in stucco filled with stained glass. On the north side of the mosque is the great court, of the same length as the mosque, and 160 feet in depth, surrounded with an arcade with openings above, similar in size and design to those already mentioned in the nave and aisles. Externally the mosque is

OF THE SIMPLEST DESIGN.

The walls are all built in ashlar masonry in courses varying from 2 feet 9 inches to 3 feet in height. The transept rises 30 feet above the walls of the two wings, and has a low-pitched gable on the north and south fronts, with a single bold ogee moulded cornice. There are three minarets, two of them built on the ancient towers between which the mosque was erected. The principal entrances are the triple gateways with bronze doors on the east and west sides, which lead into the great court. In front of the east and west gates there existed a double colonnade, the remains of which are built in the shops at the si e, and at the west end of the western colonnade is a magnificent archway, the greater portion of which still exists. Forming part of the south wall of the mosque are, first, the two towers before referred to, one of Syrio-Greek work, the other Roman or Byzantine; and, secondly, the great doorway of the Roman temple which served as the entrace to the Church of St. John, and was used afterwards by both Christians and Moslems, when the Church was divi e l into two portions. After a brief escription of the chief historical events connected with Damascus, Mr. Spiers, relying on Mr. Guy le Strange's translation of the works by the me iæval Arab geographers, proce le l to trace the history of the mosque from the time when it was

ENTIRELY REBUILT, IN 705,

by the Khalif Al Walid, down to the present day. The conclusion arrived at by Mr. Spiers is that Al Walid first pulled down the ancient Church of St. John and then built the existing mosque, which is virtually the same now, subject to restorations of the north minaret and the addition of two others, to the cementing over of portions of the exterior stonework damaged by the fires of 1069 and 1405, and to the encasing of some of the columns of the great court. In conclusion, Mr. Spiers described the remains of Roman work existing round the mosque, drawing especial attention to the great gateway on the west side, which he considered to be the portal of a Roman palace no longer existing. The paper was illustrated by plans, sections, and elevations of the mosque, mainly derived from his own drawings and from photographs, and based on the plan measured by Sir Charles Wilson, and published in Fergusson's History of Architecture, by drawings made in 1866, and by numerous large photographs taken before and after the fire, in October, 1893.

Mr. Holman Hunt said he had visited that part of the world, and found Mr. Spiers' address most interesting, especially his detailed account of the different epochs. Although he was at Damascus in the year 1854, it was at the time quite impossible to make observations at all, and he had often looked with longing eyes upon the interesting structure. Colonel Watson, in seconding the vote of thanks, said: "I am sure we are all greatly indebted to the lecturer for the interesting way in which he has described to us this most interesting building. There is one point I should like to mention, and that is, that, in my opinion the actual principal entrance to the mosque was not in the place indicated by the lecturer."

Professor Aitchison said, "I don't know that I have anything to say myself on the subject, except that I am rather apt to fancy that these savages, when they came out of Arabia, did not bring the least bit of Architecture with them, and that almost every bit of this ancient structure was built by the inhabitants of those civilised countries which they had overrun and not succeeded in exterminating. In Mahomet's time, the Arabs were so absolutely ignorant, that they had scarcely even the crudest idea of Architecture. I daresay when the temple over the Kaaba was erected, they could build up a wall around it either with or without mortar, but they could not themselves have roofed it over. Nobody at Mecca knew anything about roof carpentry. A story runs that a vessel was wrecked off the coast and the Arabs applied to the captain for advice. The captain gave himself out to be an able Architect, and offered to roof the structure on the understanding that they would buy the timber of the wreck for that purpose. I doubt whether the Arabs made very much headway in Architecture until many centuries afterwards. You see, the Kaaba temple was erected in 623, and this mosque was only built between 705 and 715, when Al Walid lived. Therefore, the chances are that it was not an Arab who did it. I am not sure whether it was during the reign of Diocletian II, but they had some wars with the Roman Emperor, at Constantinople, and I suppose the Saracens got the best of it. Anyhow, at the conclusion of that war, the conquerors had a clause inserted in the treaty with the Roman Emperor, to the effect that they were to receive some 70 camel-loads of mosaic and gold, and that a certain number of workmen were to be given to them for the completion of this mosque. The whole structure reminds one very much of Diocletian's Palace at Spalata. These extraordinary savages, who were possessed of that tremendous energy, in their peregrinations no doubt absorbed a great amount of the knowledge accumulated by the civilised peoples they conquered, and applied this knowlegde in their structures, and thus gave a new phase to Architecture. After all, we are still groping considerably in the dark, probably owing to the fact that the records of the Arab writers have not been sufficiently studied, in fact, very little, and that Arabic is almost an unknown language even amongst the most civilised nations ot the west." Mr. Spiers having replied, it was announced that a business meeting for the election of candidates would be held on Monday, 30th November. At the conclusion of the meeting, a special general meeting will be held, when the books and drawings bequeathed to the Institute by the late Secretary wil be laid on the table. Mr. A. S. Flower, one of the Hon. Secretaries of the Library Committee, will then give an account of the late Mr. White's drawing and sketching work.

ARCHITECTURAL MOVEMENT IN DUBLIN.

THE FORMATION OF AN ASSOCIATION.

A MEETING has been held for the purpose of inaugurating an association for the co-operation and mutual improvement of students of Architecture in Dublin. Mr. Albert E. Murray, Secretary of the Royal Institute of Architects in Ireland, presided. The meeting was largely attended. Mr. W. R. Gleave, Hon. Sec., read a letter from Mr. Thomas Drew, R.H.A., President of the Royal Institute of Architects of Ireland, stating that he learned with satisfaction that there was a movement on foot for the formation of an Architectural Society for the improvement of students in Dublin. He wished the movement every success. Letters expressing sympathy with the project, and promising support, were read from the Lord Mayor, Mr. J. F. Fuller, W. J. Doolan, L.C.E.; Messrs. W. J. Fennell, Belfast; J. A. Fullerton, Armagh; Kaye Parry Beresford Pite, President London Architectural Association, &c. Mr. Howard Pentland proposed—"That the establishment of an Architectural Association for the mutual improvement and advancement of its members in the interests of professional education and social intercourse is desirable, and as such the proposed Association is entitled to the support of the Architects, assistants, and the profession generally." It was, he said, a great anomaly that no such association had been already formed in Dublin. The fault of the Dublin Architects had to a large extent been what he might call pot-hunting. They did not hold together, and the assistants did not hold together to see what was best for them mutually. It was encouraging to see juniors and seniors coming together at that meeting in order to call for the best efforts of all for their mutual benefit. Mr. Holloway seconded the resolution, and said that if there were nothing more than the social intercourse which would arise from such an Association that would justify its being established. He hoped professional jealousy amongst rising Architects would disappear by means of the new Association. Mr. Caulfield Orpen, speaking in support of the resolution, said that the large attendance at that meeting afforded every promise of success. The Association would do an immense amount of good by affording opportunities to its members of coming together, of knowing each other, and of entertaining fear of each other's healthy criticism. The resolution was adopted. Mr. Thomas Drew proposed a resolution to the effect that the movement about to be initiated was a laudable one, and was deserving of the help and encouragement of the senior members of the profession in Ireland. They had, he said, all the elements for one of the most successful co-operative societies of Architectural students perhaps in any part of the Kingdom. The Association on social lines would, he believed, be a great success. One of the great advantages it would be to the seniors would be that it would afford them an opportunity of knowing what able assistants they had about them in Dublin. They had not full knowledge of the capabilities of the Dublin assistants, and as a consequence, very valuable work had sometimes to go away to London. For his part, he would do all he could to assist the movement. He promised to supply books for a reference library for the use of the members. He would have great pleasure in placing a room at the disposal of the Association. Lectures on special subjects might be delivered under the auspices of the Association, and the senior members of the profession would feel it a privilege to be asked to spend an evening with the members of the Association. Mr. W. H. Mitchell seconded the resolution. He said that the Association, if carried out on proper lines, would be a great success. Almost every large provincial town in England had its Architectural Association, and many of them were very flourishing ones. Mr. Walter Doolan, L.C.E., said that the Association could do a great deal of good, and the seniors should assist it in every way hey possibly could. Mr. W. H. Beardwood, T.C., said that the seniors were anxious to meet the assistants and to encourage them in every way in connection with the Association. The resolution was adopted. Mr. M'Loughlin proposed that the Association be called "The Architectural Association of Ireland," that it be established at once, and that the offices of the Association be at 22, Clare Street, Dublin, by permission of Mr. Drew, and that those present constitute a general committee, and arrange to take a ballot for officers. Mr. Tighe, of the Board of Works, seconded the resolution, which was adopted. Messrs. William R. Gleave and Frederick Hicks were appointed honorary secretaries and treasurer *pro tem.*

EDWARDIAN ARCHITECTURE.

By B. PRIESTLEY SHIRES, A.R.I.B.A.

THE DEVON AND EXETER ARCHITECTURAL SOCIETY.

THE inaugural meeting of the Winter Session of the Three Towns' Branch of the Devon and Exeter Architectural Society took place last evening, at the Plymouth School of Art, Princess Square. Mr. Charles King presided, and those present included Messrs. B. Priestley Shires, A. S. Parker, C. Pinchard, J. H. Vincent, R. S. Baker, G. Hancock, R. A. Mill, A. Rooke, H. Wattes, and E. M. Leest (Hon. Sec.). The minutes of the last meeting having been read and adopted, Mr. B. Priestley Shires delivered the first of a series of lectures that have been promised by Mr. Edmund Sedding, Plymouth, and Mr. A. H. Fellowes Prynne, and others. The subject of Mr. Shires' lecture was "The Domestic Life of the Edwardian Period, as shown by its Architecture, Manners, and Customs," and it was profusely illustrated with measured drawings, monographs and sketches, and included Markenfield Hall, Belsay and Alnwick Castles, Archbishop's Palace, Southwell, several sketches of York, cartoons from ancient MSS. Lutterell Psalter. Mr. Shires said, the Edwardian Period for Art and Architecture was perhaps one of the most brilliant and flourishing epochs in English history. The people not only enjoyed peace and prosperity, but made rapid progress in civilization. It was exactly for this period, and no longer, that the Decorative style prevailed. Many of the houses were of large extent and great magnificence, and testified to the wealth and prosperity of their owners. The general arrangement of a house of this period chiefly consisted of a hall, and Mr. Shires was pleased to observe that that feature was being greatly developed in the many fine mansions that have been erected in recent years. Originally it sometimes occupied the whole height of the house, and not infrequently had a low ground storey under it; the "wings" were commonly of two storeys only, the cellar below and the solar over it; in other instances they formed towers of three or four storeys in height. The other buildings for offices and stables, &c., were so arranged as to form a quadrangle, with the hall in one angle of the principal, and the gate-house in the centre of the open side, opposite to it, and generally the whole was surrounded by a moat. The plate and garniture of the hall table was also a great feature; the display of plate was extensive, and indicated the increase of natural wealth. Silver dishes, cups, and salt-cellars, wrought in curious devices, glistened upon the board, and the taste displayed in their manufacture was great. The distinctiue features of a banquet of the period, and the mode of serving the same, were dwelt upon. The manners and customs also came under review, and also the recreations and amusements indulged in, as well as the class of provisions partaken of, and the style of apparel worn.

The Chapel was also an important apartment, the size and situation varied considerably, but was generally near to the hall, the window was large and of an ornamental character, the altar was placed immediately under it, the sacrarium for the use of the chaplain generally extended the whole height of the building, and included a piscina and locker and sometimes a sedilla. Another interesting feature was the solar, the use of which corresponded to the with-drawing room of modern times, and was the private apartment of the lord, his family, and principal guests; one of the most striking features was the window, the recesses of which were of a fair size and usually built as in the preceding century, with the masonry left so as to form benches on each side: these were the favourite nooks and corner of domestic life, and the votaries of chess haunted these old-fashioned retreats, and it was here, too, that my lady and her fair damsels brought their spinning and 'broidery, and wrought those marvellous and beautiful fabrics for which in mediæval times their needles acquired an European fame.

Mr. Shires concluded a very interesting lecture by describing the many other offices, the state of the public roads, and details connected with the domestic life of the times.

A vote of thanks was accorded to Mr. Shires, on the proposition of Mr. Parker, A.R.I.B.A., seconded by Mr. Pinchard.

KEYSTONES.

AT a general meeting of the Royal Institute of Painters in Water Colours, Piccadilly, Mr. Frank W. W. Topham was elected a member, and Professor Hans von Bartels an honorary member.

CAPTAIN BALFOUR, the owner of Branksea Island, in Poole, has decided to rebuild this fine old castle, which was almost completely destroyed by fire in January of the present year.

THE City Commissioners of Sewers have decided to serve notices to acquire the freeholds of all the properties from Bride Lane to Salisbury Court, Fleet Street, for the purpose of widening that thoroughfare, providing the London County Council agree to contribute half the cost.

THERE is no truth in the rumour that the Church of St. Mildred, Bread Street, is threatened with speedy destruction. It is true that the vaults are being cleared of some ancient human remains, and that it will in consequence be closed for six months, but there is no project on foot for destroying the building.

IN South Staffordshire, operations have been commenced to see if coal could not be proved on the other side of what is known as the "Western Boundary Fault." The boring is taking place in the Baggeridge Woods, about a mile beyond the "Fault," which runs through the bottom of the Himley Road close to Dudley.

AT the present time there is a movement going on in Dundee to have a new railway station provided at Stannergate. About six acres of ground, it is stated, will be available for the proposed new station and goods yards, and the proprietor of the ground has offered to give off the ground at a very cheap rate.

AN explosion of sewer gas occurred last week in a deep sewer recently laid in Alfred Street, Burton-on-Trent. The iron lid of every manhole in the thoroughfare was displaced, and all the houses were shaken. A bricklayer, named Parry, was severely burnt, but fortunately no one else was injured.

IMPERIAL confirmation has been given to important concessions arranged by Li Hung Chang in the interest of English and American firms. These concessions represent something like 3,000 miles of railway, including a line from Hankow to Pekin, which covers a length of over 700 miles, and involves the bridging of no fewer than 27 rivers.

AT Stockport, Colonel Hasted, R.E., recently conducted a Local Government Board inquiry into an application by the Council to borrow £43,000 for gas-works purposes. The Gas Committee has decided in favour of a carburetted water-gas plant, to relieve the great pressure on the existing resources.

THE excavations carried on by the Archæological Society in the north-west of Thessaly, near the modern town of Agya, have at last been rewarded. The discovery has been made of the foundations of ancient towns and citadels, the names of which are still unknown, together with tombs of the Mycenian era, containing terra-cotta vases with inscriptions, weapons, and objects of Art. Important results are anticipated from a closer examination of the various relics.

MR. HENRY HARBEN, chairman of the Hampstead Vestry, laid the foundation-stone yesterday of a free central public library for Hampstead, to be erected at a cost of £5,000, the whole of which has been given by Mr. Harben, leaving only the cost of the site—£1,920—to be paid out of the parish rates, less a donation of £350 given by Sir Spencer Maryon Wilson, the owner of the land. The site is at the corner of the Finchley Road and the Arkwright Road, in a most eligible position for a central library, there being also branches at Kilburn, Haverstock Hill, and in High Street.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
November 18th, 1896.

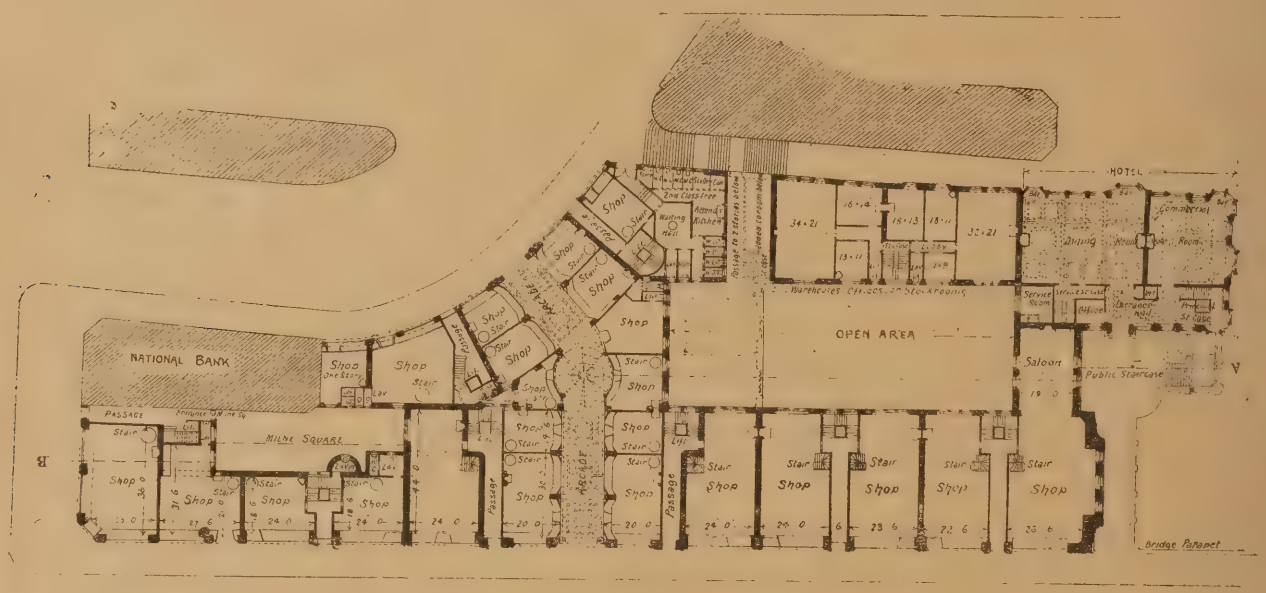
"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

THE result of the Exeter Church Competition has been made known, and the Assessor, Mr. Ingelow, has distributed the awards as follows:—First Premium of £100, Mr. Harold Brakspear, A.R.I.B.A., Corsham, Wilts, and Premiums of £25 each, to the following: Mr. Fk. Bligh Bond, A.R.I.B.A., 36, Corn Street, Bristol; Messrs. J. E. P. and J. K. Cutts, 34, Maiden Lane, Covent Garden, London; Mr. Gordon P. H. Hills, A.R.I.B.A., 4, Adam Street, Adelphi, London. These were selected out of a total of 420 competitors. We are making arrangements by which we shall illustrate the best of these designs (not necessarily the premiated) in an early number.

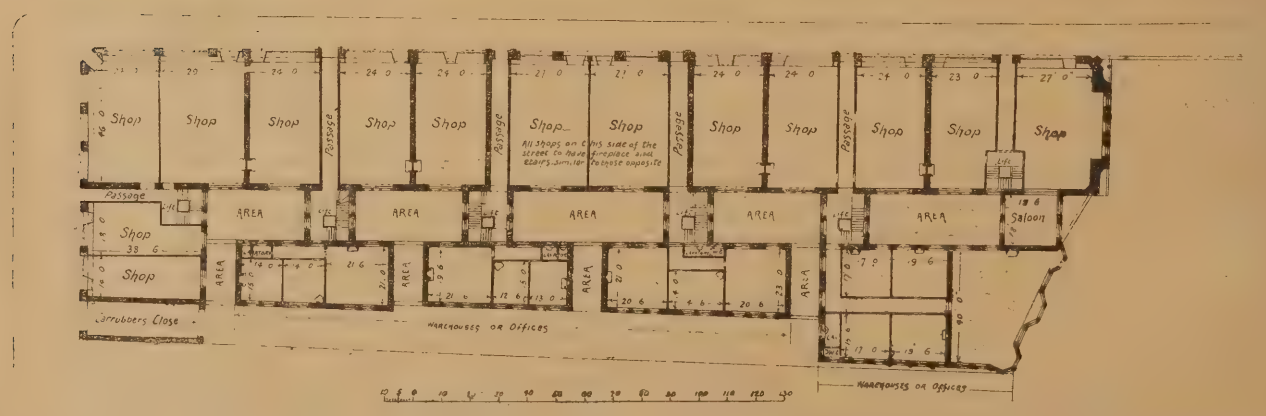
SPEAKING at the Victoria Technical Schools Bazaar, at Preston, the Right Hon. R. W. Hanbury, M.P., said technical schools had had the effect of bringing Art down from the skies to the light of day, and of making it of practical use in our homes, factories, and workshops. If we were going to hold our own in the competition and race that is going on our work must be skilled and artistic, and good work. Still, it was no use making pretty things, and useful things, unless we made things that people wanted. The Germans were introducing a lot of goods into this country which he certainly did not think were of high artistic merit. It was somewhat striking to notice the fact that while we were fighting for markets in semi-barbaric areas, the civilised nations of Europe were actually competing as hard as they could for entry into our home markets.

In a preliminary prospectus of a new work on the Art of William Morris, edited by Mr. Aymer Vallance, the Editor remarks "In view of the extraordinary revolution which has taken place in nearly every branch of the industrial and decorative Arts during the past half-century, and of all that has been achieved in the way of preserving ancient buildings from demolition, or, what is practically as bad, disfigurement in the name of restoration, it certainly seems strange that no book has hitherto appeared which attempts to give a comprehensive account of the work of the gifted Artist, to whom before all others belongs the credit of being the leading spirit of these movements." This want Mr. Vallance's book is intended to supply, and will contain, among other illustrations of decorative work designed by Mr. Morris, a drawing by Mr. H. P. Clifford, of the Red House, Upton, Bexley, designed by Mr. Philip Webb for Mr. Morris; the Manor House at Kelmscott, near Lechlade; Kelmscott House, Hammersmith; and other places of interest in connection with Mr. Morris. Mr. Philip Webb, of whom the public has heard more of late than at any other period of his life, may be called the Artist's Architect, his work being mostly confined to the erection of mansions for wealthy men of Artistic taste and dwelling-houses for painters. He has built but little in London, but his admirers recall with pleasure the massive building for the Earl of Carlisle, at Kensington Palace Gardens; the charming house for Mr. Val Princep, in Melbury Road, adjoining Lord Leighton's; Mr. G. P. Boyce's house, Glebe Place, Chelsea; and the block of offices on the north side of Lincoln's Inn Fields, half hidden between Mr. Waterhouse's terra-cotta front to the Equity and Law Life Assurance and the pretentious common-place of the Inns of Court Hotel, all of which are from Mr. Philip Webb's hand.

IN so far as the area controlled by the Commissioners of Sewers is concerned, London is the best cleansed city in the world, and the contrast between the thoroughfares east of the Law Courts and those that lie to the westward is very marked. Vestries, in whose hands the responsibility rests, do not pay as much attention to keeping the streets in their parishes as sweet as the civic authorities are compelled to do theirs by reason of the enormous traffic which daily passes through the highways and byeways of the one square mile having for its centre the Royal Exchange. According to a day census taken by the Corporation, in 1891, there entered the City, on foot or in carriages, 1,186,000 people, and on the same day 29,000 vehicles were counted passing into and leaving the City. About 310,000 persons spent the whole day at work within the civic boundaries. There is reason to believe that during the last five years these figures have enormously



GROUND FLOOR PLAN - NORTH BRIDGE STREET LEVEL



NORTH BRIDGE STREET RECONSTRUCTION, EDINBURGH.—PLAN OF FIRST-PREMIATED DESIGN BY MESSRS. SCOTT AND WILLIAMSON.

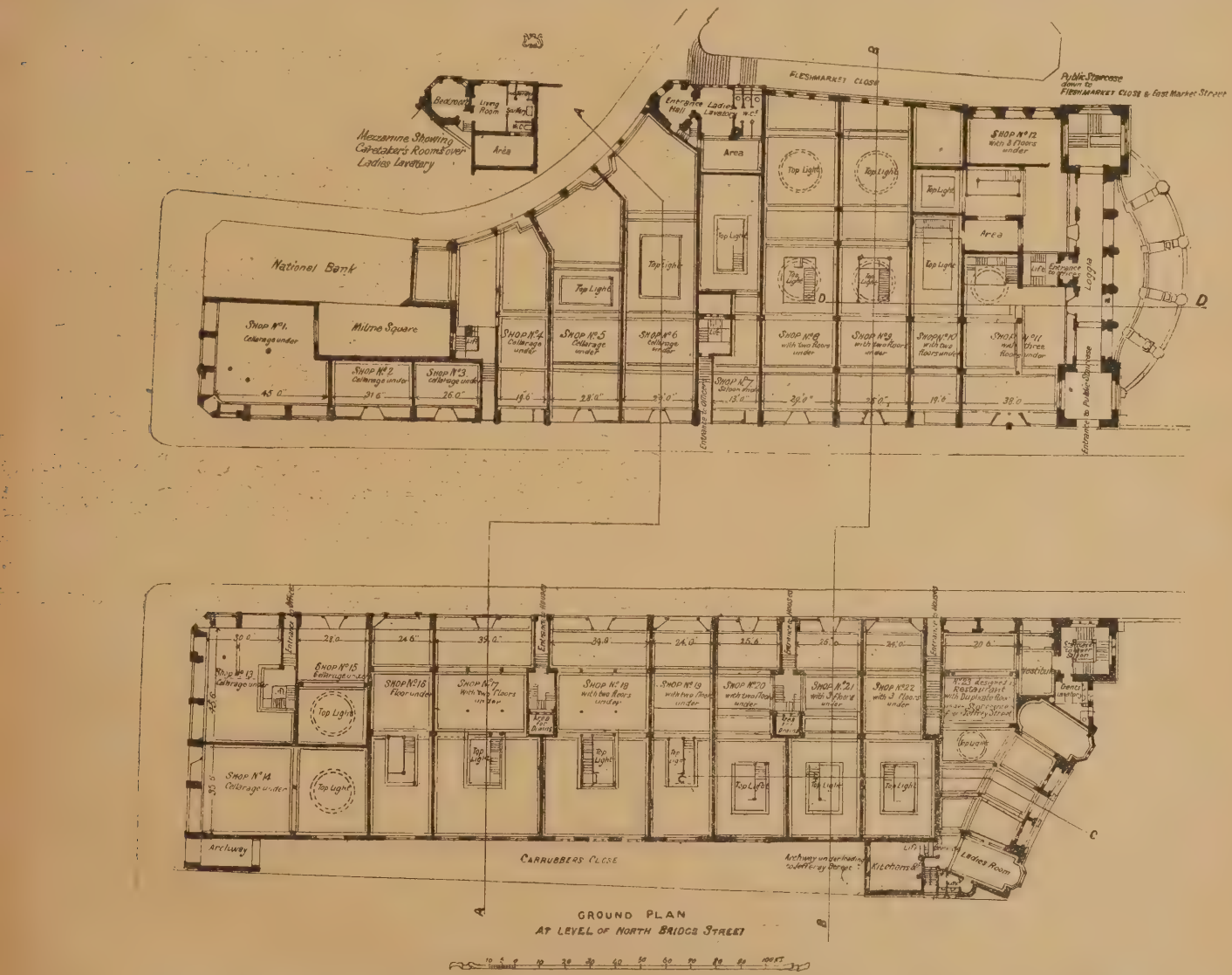
increased. They will show what great care must be taken in keeping the thoroughfares clean, and in removing the refuse produced by so vast a traffic and such a large day population. City scavengers are, indeed, always at work, with the exception of Sunday afternoons. About 700 men, women, and boys are regularly employed, and annually an average of 74,000 tons of manure, paper, straw, sweepings, road scrapings, and market refuse are removed from the roadways.

AT a conversazione, given by the Carpenters' Company at their hall in London Wall last week, the prizes were presented to the successful exhibitors at the fourth exhibition of works in wood and wood-carving, held at Carpenters' Hall under the auspices of the Carpenters' and the Joiners' Companies. An account of the exhibition appeared in the BUILDERS' JOURNAL of October 28th. The Master of the Carpenters' Company presided, and the awards were presented by Sir Arthur Arnold (the Chairman of the London County Council). Professor Banister Fletcher read the report of the Judges' Committee, of which he is chairman, and in which a marked improvement was reported in the works sent in in competition in all the divisions in works in wood and wood-carving. Sir Arthur Arnold then distributed the awards, which consisted of one gold medal, eight silver medals, twenty-five bronze medals, and £91 in money prizes. Replying to a vote of thanks, Sir Arthur Arnold said it had always been his desire that the guilds of the City should have a practical, real, and abiding interest in the trades with which their names were identified. He went on to speak in flattering terms of the exhibition, and of the efforts made by the Carpenters' and Joiners' Companies to promote technical education, and benefit the crafts with which they were so closely identified.

THERE is material for comment in the constitution of the committee which the Lord President of the Council has just appointed "to consider the mode in which the grants in aid of the Science and Art Schools are distributed, and to report if it is desirable to make any alteration therein." While it includes two officials of the Science and Art Department and one from the Treasury, there is not a single member of it who has any practical acquaintance with Art matters. The only representative of Art, indeed, is Mr. W. Armstrong, the Director of the Dublin National Gallery, whose post is hardly one that brings him in contact with Art School work. All the other members of the committee are scientists or educational experts who have already served on the Royal Commission on Secondary Education. It seems quite ridiculous that in such an inquiry no part should be assigned to a prominent Artist or Art teacher. The omission greatly discounts the value of any conclusions at which the committee may arrive.

AT a recent meeting of the Executive Committee of the "National Trust for Places of Historic Interest or Natural Beauty," held at 1, Great College Street, Westminster, it was announced that £80 was still required to secure for the nation the charming head-land which is known as Barras Head, and which forms the whole of the north side of King Arthur's Cove, and on either hand commands fine prospects over the rock-bound Cornish coast. It is from the head-land, too, that the finest and most inspiring views of the grey ruins of "Dark Dundagil by the Cornish Sea" are obtained. It is necessary to permanently protect Barras Head, if the associations of Tintagel Castle are to be preserved. The castle and the whole of the neighbourhood are so inseparably linked with the romance woven round King Arthur and his knights, that it might be thought no difficulty would be experienced in raising the small sum required to save the head-land. Unfortunately this has not been the case. The Earl of Wharncliffe offered the bluff to the "National Trust" for £505—the price for which he purchased it. The coast in the locality of Tintagel and Boscastle is being so rapidly built over, that the council of the Trust, feeling that in after-years the nation would be grateful for the preservation of a piece of typical Cornish scenery in its wild and unspoiled condition, decided to endeavour to purchase the property, more especially as "Barras Head" is pregnant with poetic and historic associations.

PROFESSOR HERKOMER, R.A., at a recent meeting of the Birmingham Welsh Society, delivered a lecture entitled "Art Culture in Wales." He said, that although it was known to most people that he was a teacher, it was not usually known that his life's teaching had been done as a love, and not as a business. Let him be freed, therefore, from any suspicion of sordid motives when he took up a nation's cause in Art. He considered that no nation could be said to have fulfilled, in an intellectual sense, its entire mission until the graphic and the plastic Arts had been adequately represented, and it was from an enthusiastic desire to help Wales to attain this indispensable condition that he held out hand, heart, and experience. He did not know when the graphic Arts were introduced into the programme of the Eisteddfod, but it was certain that it had played, so far, an almost inappreciable part, all the excitement, all the emulation, going out in the poetic and musical directions. The best friends of the Eisteddfodau were forced to acknowledge that too much time was devoted to studying the few things given out for competition, and too



NORTH BRIDGE STREET RECONSTRUCTION, EDINBURGH.—PLAN OF SECOND-PREMIATED DESIGN BY MESSRS. GIBSON AND RUSSELL.

little to general improvement. Again, the time given for the production of original compositions was far too short, and that was to a great extent the cause of much "scrappy" work being done. This also gave the enemies the opportunity of asking "what has it all amounted to?" But all this was remediable. As the Art-teaching in Wales had hitherto not only been scanty, but for the most part of the wrong sort, the Art aspirant who could go away, did go away, with the result that he never returned. If the Art-workers had been few, the Art-patrons had been fewer, and this proved that the best workers did not venture back for fear of not getting patronage, and that the native patrons of Art seldom thought of looking for the workers within the Principality.

Those two conditions of things had acted and reacted upon each other with disastrous result. The remedy was simple: if there were Welsh Art-workers abroad, entice them back, and then tell the patrons that they had come back! If the Welsh Artists and Art-craftsmen living in or out of the Principality would only send to the National Eisteddfod, they should soon find the workers who were worthy of being recalled. Those would be the masters, and when once the right schools were formed, Wales would progress rapidly. Architects were at a loss to know where to get Artistic work satisfactorily done, therefore there was a future for the Art-craftsman. After criticising the system adopted by South Kensington, the machinery of which he described as gigantic and unwieldy, Professor Herkomer went on to say, that, granting that the Kensington system was of use once upon a time, and that without it schools of Art would not have been established at all, they must look the matter straight in the face, and acknowledge that they had now arrived at a point when it must change its form, in order to fulfil a great duty and to be of use, or else be disbanded. But in the future they must see freedom of action given to each master, to each town possessing an Art school. And this independence was only to be obtained by municipal support, assisted by money at the disposal of the County Council for educational purposes, each town to itself, each town with its well-paid responsible masters. This emancipation from the apron-strings of Kensington, through municipal and County Council support, would produce an individuality in the Art of each town. They had heard him say that certificates obtained from such a system as that practised at South Kensington were worthless as guarantees of ability; therefore, the whole question for Wales resolved itself into the following:—"Wales needs masters who will establish Art schools on a new and rational basis."

AMONGST the many mementoes of the past which surround Winchester, the Hospital of St. Cross claims first attention. The hospital was founded by Henry de Blois, Bishop of Winchester, and brother of King Stephen. In the course of time its benevolent character was diverted from its original purpose, but all its charitable institutions were fully restored by William of Wykeham, and his successor, Cardinal Beaufort, in 1444. The building suffered somewhat during the Wars of the Roses, and also at the Reformation, a large number of its possessions being sequestered and alienated. The hospital, although greatly diminished in revenue, still maintains a master, steward, chaplain, and thirteen brethren. The church consists chiefly of Norman Architecture, and was erected in the time of King Stephen.

A LIBERAL response has been made to the appeal issued early in the year for subscriptions towards the cost of repairing the nave roof of Winchester Cathedral, the amount already received or promised being £7,500. Excellent progress is being made with the work of repair, which is expected to be completed by the middle of next year. Serious cracks and dislocations have been found in the beautiful stone vaulting, designed by William of Wykeham, and great skill and care will be required in the repair of the mischief. The total cost of repairing the roof and vaulting, including Architects' fees, &c., is estimated at about £8,500.

IT is hoped that the existing deadlock in respect to the erection of the new offices of the Commission of Sewers will shortly be overcome, and the work of building resumed. When the new offices reached a certain height in Basinghall Street the Commissioners of Sewers were restrained under an injunction from proceeding further, as a question of ancient lights was involved. The success of the injunction came as a matter of surprise to the members of the Commission, who imagined that no restrictions could be placed upon the land, and, after considerable delay, the surveyors to the Commission prepared a sketch-plan of a building which would, according to their expert opinion, be within the line, and, therefore, free from any further injunction. The question was, after considerable discussion, referred to the engineer to prepare working drawings of a building on a modified plan. These plans have been drawn by the engineer, and adopted by the committee, who will submit them for adoption by the Commission. In the meantime a heavy claim by the builders for compensation has been considered, and negotiations are in progress with a view to an adjustment of that claim, and the preparation of an amended contract for carrying out the modified plans. We believe that the original plans have been greatly altered, and have suffered greatly in the process.

A MOTION is about to be brought before the Common Council, for a grant of £10,000 for the enlargement of the Guildhall School of Music. The money is needed for new class-rooms, as the present accommodation is absurdly insufficient for the 3,700 pupils on the books. Whether the proposed new wing would not wisely be rejected in favour of an extra upper floor is, of course, worthy of consideration. The space at the back of the present school, part of which has been taken for the City Girls' School, was originally set apart for a suitable concert room and practice theatre, but the funds were never forthcoming.

IT is proposed to carry out a much-needed improvement in the neighbourhood of the churchyard of St. Peter Cheap by throwing into the roadway of Wood Street a portion of the churchyard. St. Peter Cheap was one of the parishes in London where the Church having been destroyed by the Great Fire, the Church was never re-erected. The churchyard, however, has remained, and the living has been united with that of several other City Churches. The churchyard was used for purposes of interment up to 1859, when it was finally closed by an Order in Council. An agreement has now been entered into with the Commissioners of Sewers for throwing into Wood Street about 94 ft. of the churchyard, the purchase-money, £200, to be paid into the Bank of England. It is also proposed to erect a new railing and kerb on the east side of the churchyard. Any human remains discovered it is proposed to remove to Ilford Cemetery. In giving evidence before the Consistory Court of London, Mr. Francis Chambers, surveyor, mentioned that the celebrated plane tree, which had formerly been one of the landmarks of the City of London, would not be interfered with, although it was proposed to build the rector's house near it.

IN a letter to the Daily Graphic, it is stated that Birmingham is about to follow the example of London in pulling down what are said to be its "superfluous Churches." And the Commission appointed by the Bishop of Worcester to consider the question has scheduled three of them for destruction. They are Christ Church, St. Peter's, and St. Mary's. We must acknowledge that none of these buildings are, from Architectural or Archæological points of view, so valuable as the Rolls Chapel and Hanover Chapel, Regent Street, which London has just lost; yet, in a place like Birmingham, which cannot be said to be rich in examples of ecclesiastical Architecture, one, at any rate, of these buildings will be greatly missed by all who know the city of the Midlands. That building is Christ Church. Partly on account of its magnificent site, this Church has always been one of the chief landmarks of Birmingham, and it forms an important feature in the group of public buildings surrounding the Town Hall. It is built at the angle formed by the junction of New Street and Ann Street, and although in reality a small building, its Tuscan portico and lofty stone spire present an imposing appearance. These are by no means badly designed, and the Architect who planned them thoroughly understood the secret of making a small building hold its own when surrounded by far larger and more important ones. What is still more singular is the fact that, though all these large buildings have been erected since the Church, which was completed in 1805, they have not dwarfed it. It is undoubtedly an ornament to the locality, although it is in a style of ecclesiastical Architecture which is at present unpopular. Yet if people wish to realise the injury which may sometimes be done to the appearance of a street by the destruction of one of these classical Churches, they have only to look at Regent Street. Our great English Architect, Cockerell, R.A., had given interest to the north-west portion of this street by a work of undoubted genius—Hanover Chapel—yet, in spite of the protests of all known authorities upon Architecture, the building is now destroyed, with the result that the part of the street where it stood looks mean and uninteresting.

MR. GEO. C. YATES, F.S.A., recently read a paper before the members of the Lancashire and Cheshire Antiquarian Society, in the Library of Chetham's College, Manchester, on Old Hulme Hall (demolished about 1848), Mr. C. W. Sutton, the Chief Librarian of Manchester, presiding. Mr. Yates said: having obtained four old drawings, by Dr. Greaves, of this old historic mansion—the Gateway and Tower, the Garden Front, the River Front, and the Courtyard, and also a general view, by F. Tavaré—he thought a short description of the hall would be of interest to the members. From the monochrome drawings made by Dr. Greaves in 1843, it would appear that Hulme Hall was a house of considerable size and importance. The building was arranged around an internal courtyard. The detail of the timber work would seem to correspond with that of the earlier part of the 17th century, but since its erection the building must have been considerably altered and added to, and partly rebuilt. In the North of England Magazine, published in 1842, it says "that old chateau, evidently in its last stage of decrepitude, is Hulme Hall, the scene of Harrison Ainsworth's first romance, 'Sir John Chiverton.' Approaching it from the north and crossing the River Medlock by an old dilapidated bridge, which here empties itself into the River Irwell, you passed through a fine meadow, with a line of tall and noble-looking beech trees planted on its margin; then, turning to the left, you came upon an ascending slope of rich green sward, on the extreme brow of which stood the old hall with its white front and intersected black beams, its foundation a red sand rock overhanging the River Irwell, with a narrow pathway only intervening between the latter and the mansion. Down to this part of the stream there was a steep winding path, thickly covered with brushwood, and a sloping ledge called the Fisherman's Rock, about which some terrible stories were told, giving probably to Ainsworth his first impulse to romance. Hulme Hall is believed to have been occupied, in the reign of Henry II., by John de Hulme. It appears from ancient deeds, that Adam, the son of Adam de Rossendale, held the 'Manre de Mamecester,' meaning the Manor House, in 31 Edward I. (1302-3). In 12 Henry VI. (1433-4), Ralph de Prestwych granted this Manor House to Henry de Byron, in whose possession it remained only five years, for in 1439 the same Henry reconveyed it to Ralph de Prestwych. In July, 1654, the Manor of Hulme was mortgaged to Nicholas Mosley. In 1695, Sir Edward Mosley died, leaving an only daughter Ann his heiress, who married Sir John Bland. Upon the decease of her parents and husband, Lady Bland resided altogether at Hulme Hall. Her gardens were celebrated for their beaty, and she delighted them with various works of Art, amongst which were several Roman altars and other ancient relics found in the district. It continued in the Bland family till the year 1751, when it was sold to George Lloyd, Esq., F.R.S., of Manchester. In 1764 the manor and mansion were purchased by the Duke of Bridgewater, whose trustees pulled down the old hall to give place to buildings in connection with the Bridgewater Canal. A series of antique panels, 41 in number, adorned with curious grotesque carvings, chiefly heads, and supposed to be by foreign artists, were removed from the hall before its demolition, and are now preserved at Worsley Hall, the seat of the Earl of Ellesmere. These carvings are engraved in Baine's Lancashire.

AT a meeting of the Institution of Civil Engineers' Yorkshire Association of Students held at the Law Institute. Leeds, Mr. Arthur Greenwood, the President, dealt with the training of civil

and mechanical engineers, and the relations between engineers and the great institution to which they all belonged. They numbered, he pointed out, some 6,000 or 7,000 members of different classes. Alluding to competitive examinations, he said he was not a blind advocate of this system. The question arose, however, whether they would not have to adopt some course like that followed by their brethren in other Arts and Sciences, and insist upon certain technical qualifications before admission to the association. Commenting on the value of technical colleges, and the opportunities for studying science at the Universities, he observed that whatever was now being done in this matter was distinctly a step in the right direction. The man who could best combine the practical with the technical training was the man who would make the greatest success. Surprising progress had been made in France of recent years in the manufacture of engines and machine tools. Although French engineers were not now aggressive, we might expect to have to reckon with them as competitors; and, indeed, he said, there was evidence of this just now in Russia, where Frenchmen had taken advantage of friendly relations to obtain concessions. The Belgians had also improved in their engineering products, and were showing themselves keen competitors; but the most serious of all competition was to be found in Germany, where not only the engineers but the workmen were better educated. The German engineers were not original or inventive, but they were industrious, patient, frugal, and plodding; they were not content to speak their own language only, and they were to be found all over the world.

ON Thursday, Messrs. Sotheby, Wilkinson, and Hodge commenced the sale of the third portion of the remarkable English series of coins formed by the late Mr. Hyman Montagu, vice-president of the Numismatic Society. The two other portions of this series sold previously realised £4,221 and £5,660. This portion now selling includes the gold and silver coins from Mary Tudor to Anne, and among the many notable items may be mentioned Simon's petition crown, a specimen of which sold in the Bieber sale some few years ago for £500, and Oliver Cromwell's fifty-shilling piece for £227. Never before has such a splendid array of English coins of this period been brought together by a private collector. The following were among the most notable prices:—Queen Mary, 1553-1554, gold: Fine sovereign, the Queen seated facing on throne, £16; Ryal, £42; half-angel, £20 5*s*. Silver: half-groat, rare, from the Gibb's collection, £18; London penny from several noted cabinets, £20 5*s*.; Philip and Mary, gold angel, from the Martin and Shepherd collections, £21 10*s*.; half-angel, from the same collections, £15; silver pattern half-crown, bust of Philip to right in armour, bust of Mary to left on reverse, only two other specimens are known, one in the British Museum and another in the Hunter collection (this coin sold in the Bieber sale for £140, and in Clarke collection for £120), £96. Ryal, first issue, from the Brice collection, £24 10*s*.; another from the Cuff, Hastings, and Nash collections, £20 5*s*.; Ryal, second issue, with the crescent on reverse, £21; another, ornaments on ship, varied, £20 10*s*. Milled coinage: half-sovereign, star on both sides, £16 15*s*. Portcullis half-dollar, quarter-dollar, and eight dollars, £15 15*s*.; milled shilling, £15 10*s*.; three farthings of London, 1563, rare (sold in the Shepherd collection for £21 10*s*.), £17. The day's sale realised £1,170 18*s*.

DR. FLINDERS PETRIE, Professor of Egyptology, University College, London, lectured last week in Queen Street Hall, Edinburgh, to the members of the Philosophical Institution. The lecture was the first of the season, and the subject was "Excavating in Egypt: its Methods and Results." The general character of the country was first shown by the lecturer, with views of the plateau of limestone rocks through which the Nile valley is cut to a depth of 1,500 feet, channelled along the sides with grand gorges cut by the ancient rainfall. The excavations were sometimes in towns, or else in temples, or in cemeteries. The carved limestone lintel of the Temple of Nubt, found last year, was shown by the lecturer as a fine instance of the delicate carving of hieroglyphs and symbolic scenes. A great source of historical information, he continued, was in the deposits which were placed in the foundations. These were models of the vases used in the ceremonies, of the tools employed, of the building materials, and of the food and utensils required by the workmen. The date was shown by blocks of stone or of metals bearing the King's name. Another class of technical remains was the series of drawings and trial sculptures from the schools, which practised inside deserted temples where fine work could be found for copying. The common material for writing and drawing on was potsherd, and the spirited and able sketches on that rough material were often admirable—such as a peasant lad going out into the world, and heads of kings, and of a girl. The last-mentioned had been ridiculed by another student, who had added a dog scratching the girl's nose. In another technical line they had the set of iron tools discovered at Thebes, with an Assyrian helmet belonging to probably 670 B.C., and showing the high state of tool manufacture in Assyria at that date, at which most of the modern tools appeared already in use—the saw, chisel, rasp, file, twist-scoop, and centre-bit.

OF the great historical discoveries of recent years, one of the most important was the tablet with the mention of the war of Merenptah with the Libyans, and his subduing the people of Israel in Palestine. That was a vast block of grey syenite, over ten feet high and five feet wide. It was first cut and engraved by Amenhotep III. for his temple at Thebes, about 1420 B.C., and was taken from there by Merenptah to build it into his own temple, and inscribe the back of it with the account of his wars, about 1200 B.C. It bore the only mention of the Israelites yet known on Egyptian monuments, and was earlier by four centuries than any such record from Assyria. Beside that tablet, a splendid half-length figure of King Merenptah was also found, which showed far the best portrait yet known of the King, who was believed to be the Pharoah of the Exodus. That and the tablet were found last spring in the ruins of the temple of that King at Thebes. Near there was also a beautiful head of a Queen, carved in limestone. A little fragment which showed the naturalistic work of earlier times was also found this year—an ivory carving of a boy carrying a young calf on his back, which belongs to the twelfth dynasty, about 2500 B.C. From the curious artistic movement of naturalism which took place about 1380 B.C. under the influence of Akhenaten there were shown by Dr. Petrie some examples. The actual death-mould of that King's own head was found on the spot where his funeral furniture was prepared. The dreamy, thoughtful, and delicately marked character of the King were strikingly shown in that strangely preserved copy of his living self. The spirit and freedom shown in sketches of horses' heads, carved on limestone and drawn upon pottery, was like the work of a Greek or Renaissance Artist. In fresco work shading was used, as shown in a group of two little Princesses seated together. The work of excavating was carried on by gangs of carefully selected workers; each was observed, and his character considered, and he was educated to straightforwardness and skill, so that after a month or two of training, the best lads were just like the hands of the master; they could do whatever they were told to do, and could be well trusted. Such work was a most interesting study of character and ability. The complete confidence which could be established with the better class of Egyptian peasant was the most pleasing part of his nature. In place of trying to always elude authority, as he had been accustomed to do all his life, he would trust his master absolutely, make him his banker, and implicitly do what he was told. The best age was from twelve to eighteen, when their wits were at the brightest. In the Delta the girls also worked, and did quite as well as the boys. The amount done without any pressure, entirely by piecework, was amazing. Two boys of twelve or fourteen would cut and remove twenty-four cubic yards a day, as much as three English navvies, and be ready for an hour's ball play at the end of it.

WE are now in a position to arrive at something like the total cost of the new dead-meat market for Birmingham, certain figures required to complete the account being furnished by the recent report of the Markets and Fairs Committee. The first estimate of cost, which was admittedly to a considerable extent conjectural, was embodied in the statement of the scheme presented to the Council in 1894. This estimate was put at £48,000, of course exclusive of the cost of the land. At a later period, when the plans of the committee were more thoroughly worked out, and when certain contingent expenses were ascertained, the estimate rose to £53,000, which included building, gas and water services, sewering, all permanent fittings, and Architects' commission, but which did not include refrigeration plant, pumping machinery, electric lighting, lifts, boilers, water tanks and some other items. It was estimated that these matters, unprovided for in the original and revised estimates, would require £10,000 to £12,000. The lowest tender for the lighting is that of Messrs. Mavor and Coulson, of Glasgow, which comes to £7,877, and there are other works connected with the installation, bringing up the total outlay in this department to £10,143. Another sum of £2,610 is required for lifts, boilers, tanks, &c.; and then comes a further charge for general fittings, the lowest tender for which is that of Messrs. Murdock and Cameron, of London and Glasgow, amounting to £10,553. Towards this, however, £5,000 was provisionally included in the builders' contract for engineers' work, so that the excess of expenditure is £5,533. These items together show an additional outlay of £18,286, and a total general expenditure of something over £71,000. The cost of the freehold land (about 12,000 square yards) was £33,000, and to render the site at once available certain leasehold interests had to be bought out. Probably we shall not be far out in assuming that, with legal and other expenses, they may reach a total of £7,000. In that case the final account would stand in this way:—Land and expenses, £40,000; building and fittings complete, £71,000; total expenditure, £111,000. Considering the extent of the market, and the advantages it will confer, it may be reasonably assumed that the cost will not be excessive.

FOLLOWING upon the appointment of Mr. J. Price as Birmingham City Surveyor, some important measures in the way of reorganising the Surveyor's department are now in progress. From various causes several officers and servants under the Public Works Committee left the service of the Corporation shortly before Mr. Price commenced his duties, and the Committee came to the conclusion that it would be desirable to await the arrival of the new Surveyor before filling up the vacancies. It was also thought that a favourable opportunity presented itself for reorganising the departmental work in many respects, so as to bring it more directly within the immediate control of the chief officer. In various ways the work had become somewhat unwieldy and difficult to cope with since the enlargement of the city boundaries, whereby the area of the borough was increased from about 9,000 acres to 12,000 acres. In a few days the report of the Committee for presentation at an early meeting of the Council will be issued, containing all the detailed changes which, in the judgment of the Committee, it is thought practicable to carry out. The most important proposal is the division of the city into four or five districts. Each of them is to have its full proportion of the general staff, and at their head a thoroughly experienced official, who will be directly responsible to the City Surveyor for the due performance of the work. It is believed that in this way the duties involved in the sewering of the city, the cleansing of the streets, and the inspection and control of the erection of buildings will be more effectively carried out than heretofore.

"THERE are a number of stories in circulation going to show why the American Executive Mansion was called the White House, and by whom it was first called such," says a Washington historian, "but I think the evidence tends to give that credit to James Madison, who was the fourth President, and who was driven out of the Executive Mansion when the British burned it in 1814. The Executive Mansion is built of freestone, which was quarried down on the Potomac River. The Capitol proper was constructed out of the same stone, though, of course, the wings for the Senate and House of Representatives are built of marble, with granite foundations. At the time the British burned the Executive Mansion they did a lot of other damage, and the country was pressed for money to repair the same. The walls of the mansion were but little damaged, other than being blackened by smoke. Money was scarce, and

Congress made an appropriation to have the outside of the house painted. White was selected as the best colour. The Capitol was not painted for nearly 20 years afterwards. Madison, in a letter to a personal and political friend, wrote: 'Come in and see me any time. You will always find me in at the White House.' The Executive Mansion may have been called the White House before that, but I have never been able to find any record of it. The letter from Madison had an important political bearing, and was very extensively circulated. Up to that time, the Executive Mansion, which is the legal name for it, was generally spoken of as the President's House."

JAN VERHAS, the Belgian Artist, who has just died, owed much of his success to the timely hint conveyed to him by Mr. Alma Tadema, who was one of his fellow-workers in the Antwerp Academy. Verhas sought to study academic precedents, but the English Artist urged him to seek his subjects from contemporary life. The Belgian Artist took the hint, with the result that he eventually came to be recognised as one of the most successful painters of children and animals. The Modern Museum at Brussels contains several examples of his Art, one of the most admired pictures being that representing a procession of school children defiling past the King.

MR. EDWARD CROSBY has recently drawn attention to an interesting bellows-stand, which is in the collection of old furniture on the ground floor of the South Kensington Museum. The stand was originally an appendage to the Church of St. Mary Somerset, Thames Street, of which all but the tower was demolished in 1866. It is of seventeenth-century workmanship. The wood, both of the stand and of the double lever, is oak, and the whole is richly carved. St. Mary's was one of the Churches which Wren rebuilt after the Great Fire. Mr. Crosby is of opinion that the stand belonged to some old country Church before it came to town. He says that he has searched in vain for any reference to it in works on the City Churches, but considers that its probable obscurity in the organ-loft may be responsible for its having been overlooked by ordinary observers. Probably there are some who remember its existence in the old Church, or its removal to South Kensington.

GRIEVOUS complaint is made respecting the disrepair and dirt of the London Bridge roadway. It appears that the authorities of the Bridge House Estates are not quite decided among themselves on the best system of paving, and, meantime, the public, which has to traverse the river at this point, have to suffer. It is hardly to be believed that the most important city in the world should let its greatest bridge get into a condition resembling a country road, with such deep ruts in it that the horses stumble badly, while wheels skid down inclines. As to the dirt, the mud is drawn to the sides of the footway, the horses which pass splashing the unfortunate pedestrians from head to foot, and bespattering even the stone parapets till they are quite thickly coated.

A CORRESPONDENT writes that no one who visits Spain should miss seeing the famous Palace of the Escurial, lacking though it is in the grace which is such a notable feature of structures like the Alhambra and the Mosque of Cordova. Philip in building this Monastery designed to have his palace and the cemetery under the same roof, and it really seems as if the splendour of the Pantheon surpasses all other portions of the Escurial. It is under the Chapel, and is entered by a long descent of granite steps, through corridors lined with jasper and splendid marbles, and adorned with pillars and bronze statues. Once within, seen by the light of glimmering torches, the chamber of dead sovereigns shapes itself into an octagonal room, lined with magnificent tombs, upon which the luxury of funereal Art has been exhausted. In long regular rows they lie, literally shelved one above the other. The kings and queens are divided, the former lying on one side and the latter on the other.

AT the instance of Mr. Hughes, a committee of the Bristol Council has been appointed to consider the terms upon which the Fine Arts Academy could be transferred to the city. The task is not free from difficulty. It is necessary to respect the interests of the existing School of Art, and also of the Artists who form the local academy. But it is obvious that if there were a municipal Art gallery with a permanent collection, which could be supplemented from time to time by exhibitions, the profit, as at Liverpool and elsewhere, being devoted to the purchase of pictures for the permanent collection, local Art would be benefitted, and the entire community would be afforded a means of intellectual pleasure and refinement. It is not, perhaps, generally known that the Bristol Fine Arts Academy contains some valuable works of Art which are rarely seen. There are three Hogarths of considerable value and interest; some of the pictures given by Mr. Robert Lang are representative of the best of local Art, and there are other works that would be worthy a place in a permanent municipal collection.

THE death took place on Friday, at Coventry, of Mr. Francis Alfred Skidmore, who was widely known as an Art metal-worker. The deceased, who was eighty years of age, during his business career turned his attention to artistic metal work in the form of gas-lights, ornamental gates, and ecclesiastical work of all kinds. Of his ecclesiastical productions may be mentioned works consisting of chancel screens, altar rails, lecterns, gas coronæ, standards, pendants, &c., memorial brasses, and communion plate, in twenty-four Cathedrals, including Canterbury, York Minster, St. Paul's (London), Westminster Abbey, Durham, Hereford (screen), Lichfield (a screen designed by Sir Gilbert Scott), Chester, &c., and the Archiepiscopal Palace at Lambeth, St. Giles's (Edinburgh), St. Mungo's (Glasgow), Calcutta, Graham's Town, South Africa; also in St. George's Chapel, Windsor; St. Nicholas, Antwerp; St. James's, Philadelphia; a Church at Valparaiso; St. George's, Demarara, &c. His works are also to be found in 300 or more parish Churches, all over the country; in fifteen Colleges, including no fewer than eight in Oxford and six in Cambridge, and King's College, London, and the University of Glasgow. His most conspicuous work was the metal Gothic canopy which forms a part of the Albert Memorial in Hyde Park. Designed by Sir Gilbert Scott, and enriched with enamels and stones, this is the largest and most elaborately enriched monument extant.

THE subway from Essex Court, in the Temple, to the Law Courts, is apparently to be formed at last. It is to be constructed primarily for the convenience of the Templars, who are to pay the cost; but the public are also to have the free and unrestricted use of it. As an application from the Treasurer of the Middle Temple for permission to construct the subway was favourably received by the Strand Board of Works on Thursday, and the Works Committee was instructed to put itself in communication with the authorities of the Temple, the matter will doubtless be settled.

AN evening contemporary has given prominence in its columns to a suggestion for a London Decoration Committee. The writer of the communication thinks that unless some such step is taken the metropolis will not be adequately decorated in the summer, when the time arrives for the celebration of the sixtieth anniversary of the Queen's accession. The proposal is not to supersede individual efforts, but to supplement them. For this purpose, he says, a "well-thought-out scheme is necessary at the chief points, and in the principal thoroughfares, to do justice to the long vistas and Architectural features of London." To this end he suggests the immediate formation of a committee, to consist of men of position and influence, including the Lord Mayor, the Chairman of the County Council, with, say, the President of the Royal Academy as chairman, to consider and decide on a general scheme for the decoration of our streets, for the erection of triumphal arches, trophies, masts, &c.—"a scheme by which we should all be bound, and of which none need be ashamed."

THE General Purposes Committee of the Penrith Urban Council has received from Messrs. Brierley and Holt, Engineers, Blackburn, a scheme for a new sewerage system for the town. It is proposed to spend at least £16,000 on improving or replacing existing sewers, while in addition there is a plan for purchasing 20 acres of land lying between Broughton Hall and the River Eamont for constructing works for the disposal of the refuse.

Professional Items.

BARROW.—It is proposed to erect a new Wesleyan Church and Schools in Barrow. The scheme includes a Church to accommodate a mixed congregation of about 800, schoolrom to accommodate about 500 children, with Church parlour and vestries. The cost of this, including the site, will be about £6,000.

BATTERSEA.—The Battersea vestry proposed at the recent Local Government Board inquiry, to borrow the sum of £5,000 to purchase a site at Nine Elms for the erection of new public baths and washhouses for that portion of the parish. Mr. W. W. Young, Solicitor, appeared on behalf of the vestry, and the opposition to the proposal was led by Mr. Horace Turnor. Mr. Young, in opening his case, said that in seven months of the present year 126,332 men, women, and children, out of a population of 160,000, had used the existing baths in Latchmere Road, and this showed the need for additional accommodation, especially in a part of the parish where gas works and other manufacturing concerns were carried on, and where the people had no accommodation for washing and drying their clothes. Mr. J. T. Pilditch, the Surveyor, the Rev. E. F. Best, the Rev. Dr. Whereat and others gave evidence in favour of the baths, and the inquiry was adjourned.

BOOTLE.—The new tower of St. James's Catholic Church is completed. The tower was left unfinished at the time the Church was opened some thirteen years ago. It stands at the south-western corner of the building. A staircase turret at the north-west corner leads up to the belfry ringing floor. Externally the south doorway enters a porch with arcaded walls, and stone-vaulted ceiling 33 feet high, with an eye or ring through the centre for the passage of bells, and which has been utilised during the recent work for the raising of all the material by means of a steam lift. At the belfry stage the plan is changed from the square to an octagonal form, with partially engraved pinnacles, which are detached near the summit. In the four cardinal faces there are two light deeply-recessed windows with leaded louvre boards and crocketted pediments. The parapet is embattled, and from the corners project gargoyles. The work has been carried out by the contractors, Messrs. S. Woods and Son, Bootle, under the supervision of Mr. C. Hadfield, Architect, of Sheffield.

BRIDGEND.—The Bridgend Cottage Hospital was opened, last week, by Mrs. Turberville. The building, which has been erected upon a beautiful site, the gift of Lord Dunraven, has accommodation for eight patients, and consists of male and female wards, isolation ward, operating room, nurses' room, four bed-rooms, committee room, and domestic and other offices. The work was entrusted to Mr. Edward Pruce, Builder, Bridgend, under the supervision of the Architects, Messrs. Lambert and Rees.

BRIGHTON.—The new wing for nurses at the Royal Alexandra Hospital for Sick Children, Dyke Road, Brighton, was formally opened on Wednesday last by Councillor W. T. Dewe, Chairman of the Committee of Management. The new wing has been built entirely for the accommodation of nurses; it is a separate building, in two storeys, and is connected with the main hospital by a covered way. It provides sleeping accommodation for 12 nurses.

CLENT.—A new workmen's club-house has been opened. The premises comprise a reading room on the ground floor, 25 ft. by 14 ft. 6 in., a similar sized room above for recreation, etc., and the usual offices are provided. There is also a caretaker's house, the whole forming a substantial block of buildings. The Architect is Mr. Tom Grazebrook (Stourbridge), and Mr. Walter Bayliss (Bellbroughton), the contractor.

EXMOUTH.—A bazaar was held in the Public Hall, last week, in aid of the fund for erecting a new Wesleyan Church and Schools. The new buildings will occupy a central position. The plans of the Church provide for 612 sittings, and consist nf nave, transepts, and chancel, with a gallery over the vestibule. To the right of the chancel would be the organ chamber, with the

minister's vestry on the left. The schoolroom immediately behind the Church accommodates 374 children, infants' room, adult Bible class room, ladies' parlour, and five other class rooms. Great attention has been paid to heating and ventilation, whilst the illumination would be by incandescent gas light. The total cost, including land, is estimated at £6,000.

GLASGOW.—The High School Building Construction Students under Mr. Dobson, paid their second monthly visit, last Saturday, to the new Y.M.C.A. Club, Bothwell Street. The building, which adjoins the Institute, has been erected to provide efficient lodging for the Christian young men of the city, with delegates also from the provinces. It has been successfully designed to harmonise with the Institute, which forms the central block with the Club on the left and the Bible Training Institute on the right. The dining room of the Club will be 70 by 38 feet. The ventilation of the building has been successfully carried out, the main furnace flue of iron passing up the centre of the foul air duct. The accommodation provides for over 200 bedrooms. The washing-house is being erected at back with part of the main roof of breeze concrete to form a drying space. Messrs. Clarke and Bell are the Architects of the building.

HOVE.—After an interval of two years the completion of the Parish Church of All Saints has been taken in hand. A perspective drawing of Mr. Pearson's original design appeared in the first number of the Architectural Review. At present about half the Church has been built at a cost of £19,000, but as the eastern portion will contain more important and expensive work it is estimated that £22,000 is required, towards which about £4,250 has been raised, including a sum of £500 promised by Mr. G. B. Woodruff, Chairman of the Hove Urban District Council, on condition that £10,000 is secured before the work is commenced. The eastern portion of the Church must necessarily be built altogether, though the town could very well wait a few years. The work includes a quasi-transept which would make the Church cruciform, the arch being nearly half as wide again as the bays of the nave, and going up to the full height of the building. Beyond the transept will be the choir, consisting of two bays similar to those of the nave, and beyond the choir will be the sanctuary, of considerable depth. Beyond the transept on the south side will be a Chapel, with an apsidal end, and on the north side will be the organ, raised on arches, while the space beneath may be used for seating. The pipes of the two faces, into the transept on the west, and into the choir on the south, will go up the full height of the building. On the north side will be the vestries, with an entrance from Eaton Road, and over the vestries will be a large room, seating about 100 persons. Below, under the east end of the Church, there will be a large room, and under the vestries there will be another room to be used as a muniment room, and lavatories will also be provided. The north transept will have a five-light window, and the daily Chapel will have two six-light windows in the body of it, and four windows at the east end. The south view of the Church will be of great Architectural beauty, with the three two-light windows of the sanctuary, enclosed between two graceful towers, which will not only have a fine effect, but will also serve the purpose of buttresses, by reason of their weight. There will also be two three-light windows north and south, and thus there will be seven windows round the sanctuary, filled with stained glass. At the east end of the Church there will be a reredos of sculptured work, with a representation of the Crucifixion, and canopied niches of apostles, saints, and angels. The sanctuary, like the Chapel and the already-built baptistry, will be vaulted. On the north and south side of the sanctuary it is intended that there shall be richly carved panelled sedilia. The Church, when completed, will accommodate 1,300 worshippers, the present accommodation being for 730.

KEIGHLEY.—For a considerable time an enlargement of the Keighley Volunteer Drill Hall has been in contemplation, and the work is now in progress, under the direction of Messrs. Judson and Moore, Architects. It is proposed on the site of the present yard to erect a two-storey building, providing a gymnasium, billiard room, and canteen on the ground floor, and a large room for band practices above. The work is estimated to cost about £700

LEAMINGTON.—The Midland Counties Home for Incurables is to be extended by the establishment of a home for ladies and gentlemen only in a detached building to be situated in the south-west corner of the garden. Mr. Hawley Lloyd has prepared plans for the proposed new building, which will contain thirty rooms, capable of accommodating sixty persons. The cost of building and furnishing is estimated at £7,000.

OTLEY.—A new technical school in connection with the Otley Mechanics' Institution was opened last week. The buildings are at the rear of the Mechanics' Institute, and were erected from plans prepared by Mr. Alfred Marshall, Architect, Otley, At a cost of about £2,300, a building, including departments for Chemistry, Fine Art, Domestic Arts, and kindred subjects, has been provided. Four large, well-lighted rooms. For the teaching of the Domestic Arts, Cookery, Laundry Work, &c., there are two rooms, one of which is also available for classes in Wood Carving, Shorthand, &c. A well-equipped chemical laboratory affords accommodation for thirteen students.

PLYMOUTH.—The first section of the new tower of Emmanuel Church, Compton Gifford, has been dedicated. In February, 1895, the tender of Mr. Jonathan Marshall, of Plymouth (lowest of the eight which had been invited) was accepted for £4,910, and shortly after the contract for the first division of the work, namely, the tower to the top of the cornice under the parapet, was commenced. The committee did not feel justified, indeed, have not since felt able, to undertake the spire without further support. The cost of this part of the work, including Architects' fees, is estimated to be £3,500, of which about £1,300 still remains to be raised. The height of the tower is 71 ft. It is built of local limestone. The crockets and finials over the pediment of the entrance are of Doulting stone, and have been carved by Mr. Trevenen, of Plymouth. The entrance doors are of oak, and are hung each with a pair of bronze butt hinges, made by Mr. Thomas Elsley, of Great Portland Street, who also made the wrought-iron strap hinges for the inner doors. The tympanum above the doors is filled with oak tracery. The lower stage of the tower forms a porch to the Church. It is paved with Portland stone and rubbed Delabole slate, in large squares alternately, like a chess board. The ceiling is of oak moulded beams, and the walls of Bath stone. The long belfry windows are of Doulting stone, with traceried heads. The louvres are of oak, covered with green Westmorland slates, which form a good contrast to the Doulting stone. The upper portion of the tower has a corbel course and cornice, both of Doulting. The Architects are Messrs. Rogers, Bone, and Coles.

PONTEFRACT.—In a limited competition for a new Wesleyan Church and Sunday schools at Purston, near Pontefract, the plans and designs by Mr. George F. Pennington, Architect, of Castleford. have been accepted. The plans provide accommodation for 450 in the Chapel, which has circular galleries, a choir and organ recess, also minister's vestry, with lavatories, &c. The school premises communicate with the rear of the Chapel, and provide accommodation for 250 scholars, with four class-rooms, also kitchen, &c. The buildings are designed in the Italian Renaissance, and will be executed with local brick and stone.

SHEFFIELD.—Glossop Road Baptist Church has been recently closed for general repairs and has been completely overhauled, a new system of ventilation and heating being introduced, this portion of the work having been carried out by Messrs. Bell and Sons, Glossop Road, and the painting and re-decoration by Mr. T. G. Woof, Devonshire Street.

SHEFFIELD.—Gas has been superseded by electric light at the Cutlers' Hall. The plans of Mr. S. V. Clirehugh, of Manchester, have been carried out, and the contractors were Messrs. Verity (Limited). The installation is now practically completed, and on Thursday the light in the principal parts of the hall was used for the first time. In the new banqueting hall the massive ornamental glass chandeliers have been retained, and each is wired for 120 lamps, the average illuminating power of the lamps being 16 candles. In the old banqueting hall the lights are arranged in keeping with the architectural lines of the room. None of the lamps depend from the ceiling, and nothing obstructs the view from one end of the room to the other. The electrolier on the staircase is a Florentine bronze fitting, of a design specially got out by Messrs. Verity for the Manchester Corporation, and will carry 24 lamps of 16-candle power. A special feature of the lighting of the entrance hall will be the introduction of reflector dishes.

SWANSEA.—The borough surveyor has taken advantage of the preparation of plans for the widening of Castle Street, to point out another very desirable improvement in the same neighbourhood. This is a proposal to widen Castle Lane by the entire demolition of the "Lion" public-house and several cottages in the lane, which seem at present very puny opposite the handsome premises of Messrs. Ben Evans and Company, Limited. The suggested improvements, which would also include Mr. Bunney's shop on the opposite corner, would disclose to view a great portion of the curtain wall of the old Swansea Castle, leaving a roadway of 30 feet in width. By carrying the roadway 15 feet further, the ancient round tower, the base of which, at present, descends through the roofs of the puny premises referred to, and the whole of the wall, would be disclosed.

SWANSEA.—If handsome inducements will tempt the Welsh University Court when they are deciding the location of the university offices, there is a likelihood that Swansea will win in a race which has become rather keen. It will be remembered that Cardiff obtained Parliamentary sanction to spend £6,000 on providing the university with headquarters. This sum sinks into insignificance when compared with the provision which Swansea is willing to make. We have already stated that the Swansea offer comprised a site and buildings. The corporation intends to promote a Bill in Parliament, giving powers to make a gift of any part of its estate which may be best deemed suitable as a site for, and also to spend £25,000 on building, the university offices. The scheme has been widened out to include, not only a residence for the registrar and the necessary offices for the university, but a national museum, a national Art gallery, and a record office. The plans have been prepared by Mr. Herbert W. Wills, Architect, Swansea. Space for a colossal building is found adjacent to the free library and science and Art schools in Alexandra Road. This property belongs to the corporation, and the plan of Mr. Wills shows how the site may be laid out to advantage. The design gives a building, covering a space triangular in form, and facing Alexandra Road, Orchard Street, and Pleasant Street. The main features on the ground comprise a large and lofty "university hall," 60 ft. by 35 ft., a reception or council room, ladies' and gentlemen's cloak-rooms, registrar's apartments and offices, despatch and delivery rooms, &c. These face Alexandra Road and Orchard Street, and on the same floor are placed museum galleries and research rooms. The first floor is given up to the Art and museum galleries and record and store rooms, with the exception of that portion which is taken up by the upper part of the large hall.

TONNA (SOUTH WALES).—The school for the Llantwit Lower Board were opened formally on Monday last, by Mrs. J. H. R. Ritson. The school has accommodation for 312 children, and has large central hall with five class-rooms, and was built by Mr. Evan Thomas, Seven Sisters, at a cost of £2,400, from designs prepared by the Architects to the Board, Messrs. Lambert and Rees, Neath. The Clerk of Works was Mr. D. Wagstaff.

TORQUAY.—At a meeting of the Town Council, last week, the Harbour Committee recommended that the plans of Mr. E. Richards, winner of the first premium at the recent competition for the pier pavilion, be adopted, subject to modification in certain respects; that Mr. Richards be appointed Architect at the rate of charges laid down by the Royal Institute of British Architects, and that he be authorised to prepare drawings, specifications, &c., and estimate the cost of the works. After some discussion the motion was decided upon.

THE foundation-stone of a new church for the parish of Wortley, Leeds, was laid on Saturday by the Misses March, of Beech-grove House.

SOCIETY MEETINGS.

Sheffield Society of Architects and Surveyors. — The monthly meeting of the Sheffield Society of Architects and Surveyors was held at the School of Art, the chair being occupied by Mr. R. W. Fowler, Vice-President. There were also present:—Mr. F. Fowler, Treasurer; Mr. C. J. Innocent, Hon. Sec.; Messrs. E. M. Gibbs, Thomas Winder, J. R. Wigful, J. Smith, T. H. Waterhouse, J.P., C. Gibson, E. C. Skill, F. Wilson, W. Watkin, W. Potts, C. F. Innocent, W. G. Buck, F. W. Chapman, J. C. A. Teather, L. W. Ensor, H. C. Brameld, and others. Mr. J. D. Leader, F.S.A., delivered a lecture on "A Study in Domesday," which was illustrated by a large map of the Hallamshire district. After some introductory references to the circumstances under which the Domesday survey was undertaken, Mr. Leader said the object of the survey was fiscal, not topographical. The lecturer quoted the extract from Domesday relating to the manors of Hallam, Attercliffe, and Sheffield, and remarked that it was anomalous, and argued at considerable length that the vill of Hallam was the High Street of the present town of Sheffield, and that Waltheof's Hall stood on the site known as Castle Hill, where the Norman lords in after years built a castle of stone. He quoted instances to show how the boundaries of manors had been changed since the time of the Domesday survey, and pointed to a diagram, prepared by Mr. C. J. Innocent, Hon. Secretary of the Society, to show how small a portion of the whole manor of Hallam had since acquired the name of Sheffield. His contention was that the manor of Hallam, at the time of Domesday, extended up to the junction of the rivers Sheaf and Don, and that the Sheffield of Domesday was Sheffield Park, and nothing more. Granting this, all difficulties as to the site of Waltheof's Hall would vanish, and we could understand that the Domesday vill of Hallam was neither in the Rivelin Valley nor at Burnt Stones, but lay between the Hall and the Townhead at Sheffield. How and why the name Sheffield absorbed the name Hallam, or caused it to shrink within the limits of two rural townships, was not explained. Certain it was that the superiority of the name Sheffield had fully established itself in 1284, the date of Kirkby's Inquest, when Sheffield, Bradfield, Ecclesfield — three vills — and half Handsworth, were held by Thomas de Furnival of the King in *capite*. These vills constituted the division called Hallamshire, and Mr. Leader made the suggestion that Hallamshire took its origin as a taxable unit in pre-Norman times, and that the same explanation might account for other so-called shires within the county of York, such as Northallertonshire, Sowerbyshire, Mashamshire, Richmondshire, and perhaps others. — On the motion of Mr. E. M. Gibbs, seconded by Mr. C. J. Innocent, a resolution of sympathy with the Council of the Royal Institute of British Architects on the loss sustained by the death of the Secretary, Mr. W. H. White was unanimously passed.

Architectural Association of Ireland.—At a General Meeting of the Association, Mr. Walter G. Doolin, M.A., B.E., in the chair, the following officers were elected for the ensuing year:—President, Mr. R. Caulfield Orpen, M.R.I.A.I.; Vice-Presidents, Mr. Howard Pentland, M.A., B.E., and Mr. Joseph Holloway, M.R.I.A.I.; Hon. Secretaries, Mr. W. R. Gleave, A.R.I.B.A., and Mr. R. M. Butler; Hon. Treasurer and Librarian, Mr. Frederick Hicks; Hon. Auditors, Mr. A. J. M'Lloughlin and Mr. W. Beckett, jun. It was decided to ballot for a committee of seven, having power to co-opt two additional members.

Plymouth, Stonehouse, Devonport, and District Master Builders' Association.—At a meeting of this Association, held at Plymouth, on the 9th inst., the following officers for the ensuing year were elected. President, Mr. R. Jenkin, of Devonport; Vice-President, Mr. A. W. Lethbridge Plymouth; Treasurer, Mr. C. H. Tozer, Plymouth; Secretary, Mr. J. H. Blackell, Plymouth. Several new members were enrolled, and a committee was appointed to report on the applications received from the Plasterers' and Carpenters' Societies for a rise of wages, from 7½*d.* to 8*d.* per hour, and a revised Code of Rules, and from the Labourers' Society for a rise of wages from 5*d.* to 5½*d.* per hour, and a revised Code of Rules.

National Association of Master-Plumbers.—The half-yearly Conference of the National Association of Master-Plumbers of Great Britain and Ireland was held at Birmingham last week. Mr. A. E. Biggs (Leicester) presided, and delegates were present from London, Halifax, Leeds, Huddersfield, Newcastle, Wolverhampton, Derby, Leicester, and other towns. The Secretary announced that the Association continued to progress in numbers and finances, and was now well consolidated. The question of the registration of the Association was discussed, and it was resolved to form the Association into a limited company, but it was pointed out that the object was not to make it a profit-making concern. The President, in his address, explained that the object of the Association was to see that the plumbing trade was carried on by the plumbers of the country, and not by those who had no training for the work, and therefore were personally unable to undertake the work. It was decided to hold the next annual conference in London.

Hawick Archæological Society. — Dr. Christison delivered a lecture to the members of the Hawick Archæological Society, last Thursday, on camps and forts. The Rev. Mr. Johnman, who presided, referred to the finding of a cist and skeleton near Cavers. He said it was one of the most remarkable finds associated with the Border district. In the cist there were no relics of the Bronze or early Iron Age, or of the Stone Age, but there was a wonderfully perfect skeleton of a highly-developed man, of great brain power—perhaps a great Border chief. The cist was carefully formed, and there were also found two bone or horn pins, showing clear proof of having been manufactured; also a number of calcined bones lying beside the skeleton.

New Swindon Junior Engineering Society.—There was a large attendance of members at the Mechanics' Institute to discuss a paper read by Mr. J. W. Cross, entitled, "Notes on Locomotive Practice on the London and North-Western Railway." As might have been expected, the use of compounding received a large share of attention, as a great many of the London and North-Western Railway Company's locomotives are arranged for this principle. Another point of interest was the statement with regard to the great accuracy of the fitting work turned out, which enabled the authorities to efficiently carry on a system of interchangeability of parts. Details of machine shop practice were described at length, also the construction and preparation of all important parts. The use of cast steel appeared to be pretty general, and Mr. Cross asserted that now the castings are more reliable this metal would be employed to a much greater extent. Mr. Cross then turned his attention to an exhaustive comparison between the different types of engines. Many other items in locomotive practice were explained.

As a memorial of the late Mr. Peter Martin, a new organ has been placed in the Lee Congregational Chapel, Horwich, at a cost of £500.

IN Rome, a small popular theatre, called the Alhambra, situated in the Prati di Castello quarter, and built of wood, has been entirely destroyed by fire, but there was no loss of life.

A NEW Fire Brigade Station has been opened in Shottendene Road, Fulham. The new building has been erected at a cost of £11,570, and contains accommodation for twelve married and eight single firemen.

IT is reported that on Monday night (October 5th), a fire broke out which destroyed half of the city of Guayaquil, and finally burnt itself out after consuming 100 blocks of buildings, and goods and property of immense value.

THE National Schools extension is progressing at Normanton satisfactorily. At Dodsworth (Woodhouse) the schools have recently been enlarged, and an institute built; at Hopetown, the work of enlargement is now going forward; whilst at Normanton proper, it is proposed to commence enlargement and improvement almost immediately. The cost at Woodhouse is about £1,200, at Hopetown £300, and at Normanton probably £500 to £600.

Trade and Craft.

GOVERNMENT WORKS.

Since the summer of 1893 not less than £160,000 has been expended by the Government authorities in dredging new mooring spaces for battleships and cruisers off Devonport and Keyham, and plans have just been submitted to the Admiralty which will entail the outlay of at least another £100,000. It seems that during the last three years so many new ships have been added to the navy, and that so many more are now in course of construction that in two years time the whole of the berthing space at Devonport and Keyham, which has been provided at so much cost, will be more than comfortably occupied, and the commencement of new works is therefore almost immediately necessary. To this end a further £100,000 will be asked for in the next Naval Estimates, and at least £50,000 more will have to be voted in the following year.

LIGHT FROM DUST.

The Shoreditch vestry has purchased a site, on which will be placed the electric generating station, the new baths and wash-houses, and the free library. The furnaces which burn up the dust will heat boilers, which will in their turn supply steam to engines of 2,400 horse-power, and these will work the dynamos for creating the electricity, which will be distributed all over the parish in the form of electric light and motive power. And, finally, the exhaust steam will heat the water in the baths and wash-houses, and so save an expenditure of £500 a year in coals. The furnaces and boilers are of the newest and best description, and are being erected by Messrs. Manlove, Alliott and Co., of Nottingham, Messrs. Kincaid, Waller, and Manville being the engineers. The dust will be carted in and shot into hoppers, whence it will be conveyed by overhead tramways to the furnaces. Here it passes into the drying cells, and is raked forward on to the fire-bars, where it is burnt by forced draught. But the most interesting thing about the present scheme is the system of thermal storage, by means of which the heat of the furnaces is stored up in the daytime to be used at night when the electric lighting plant is in use. Every part of the plant is duplicated, and in some cases triplicated, to provide against accidents and breakdowns. The street lighting to be provided, consists of 67 arc lamps and 36 lamps of 32 candle-power.

ELECTRIC EXPRESSES.

The Metropolitan District Railway Shareholders' Association has issued a copy of Sir Benjamin Baker's report, and estimates for the construction of electric express lines under the existing system of the Metropolitan District Railway. Sir Benjamin says the proposed line will commence by a junction with the main line of rails of the District Railway, about midway between Earl's Court and Gloucester Road, and curving to the right will run under the Cromwell Road for a distance of about 300 yards on a descending gradient of 1 in 42, when it will be at a sufficient depth to pass under the side wall of the covered way of the District Railway, near to the west end of Gloucester Road Station, whence it will continue to run under the District Railway to the terminus at the Mansion House. It is proposed that there should be one intermediate station at Charing Cross. At Earl's Court the existing platforms would be used by the Electric Railway passengers. At Charing Cross the platforms for the latter would be 63 ft. below the present District Railway platforms, or 78 ft. below street level, and at the Mansion House the corresponding depths would be 71 ft. and 95 ft. respectively. Hydraulic lifts and stairs would be the means of communication between the platforms of the Electric Railway and District Railway at Charing Cross and Mansion House, and above that level the existing entrance and exit stairs, slightly modified, would be common to passengers by both lines. Sir B. Baker estimates the cost of railway work, land, and buildings at £1,000,000; the electrical installation, rolling stock, &c., at £264,000; and the Parliamentary and other expenses, including interest, during construction, at £189,000; making a total of £1,453,000. The necessary legal formalities are being pushed forward as rapidly as possible.

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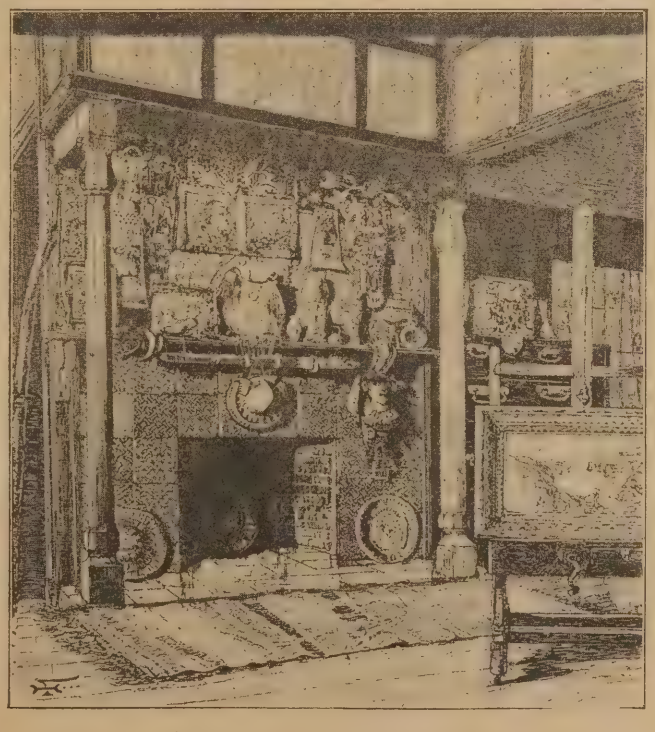
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An Ideal Architect: Artist, Constructor, Engineer.*

WE belong to a profession that is amongst the noblest, as it is certainly the most Artistic and Scientific of all professions, and the most enjoyable. The pursuit of Architecture is not a labour, it is a pleasure. It is the most Artistic, because it embraces all the Arts which are really subservient to it, and which are called in to embellish and adorn it, and are part and parcel of it ; it is the most Scientific, as, in like manner, a knowledge of all Sciences is necessary to the proper carrying out of a great Architectural work, and they are, in fact, essential to it. Let us consider what an Architect must be, and know, to approach the ideal standard which we propose to set up. He must, in every sense of the word, be an *Artist*. He must be a *Constructor*. He must be an *Engineer*. You need not smile at this last assertion, it is absolutely correct, and we shall see, by considering what has been accomplished by Architects in this direction, that it is so. Let us go back to remote times, times so remote that our oldest monuments seem but as things of to-day ; I allude to the stupendous works of the Egyptian Architects, as we now see them in the magnificent Nile temples. The stone generally used in these temples was a species of granite called "Syenite," of excessive hardness, and it was used in blocks of such huge dimensions that it almost passes belief how they could have been handled at all, and lifted into their places high above the ground. For instance, many of the stone slabs forming the roof of the great Temple of Karnak weigh upwards of 50 tons, other stones are calculated to weigh from 100 to 300 tons, all set without mortar, and jointed with such accuracy that the blade of a penknife can hardly be inserted between them. Lord Armstrong (then Sir William Armstrong), than whom no higher authority lives on such a question, on the subject of the construction of these temples, speaks thus of the huge masses of masonry which he saw there. He was speaking, in this instance, of the celebrated Memnonium at Thebes, and of the great statue of Rameses the Great, which is cut out of a single block of Syenite, calculated to have weighed, before the Artist commenced upon it, 1,300 tons. He says, "to have brought such a block of stone from a distance of 135 miles, was a feat which would daunt the courage of a modern engineer, although aided by the powers and appliances unknown to the ancient Egyptians." Sir William, also describing the process by which these huge blocks of stone were quarried by means of wooden wedges which were inserted, and afterwards swelled by water, says, "if any engineer of the present day were to attempt to detach by this means, a block of Syenite weighing 1,000 tons or more, I would bet long odds against his succcess." When we consider the enormous masses of these stones, the distance they were transported, the admirable accuracy with which they were built and finished (although it is almost certain the use of steel or iron was unknown to the Egyptians), I think we may surely assert that the Egyptian Architects accomplished engineering feats of no mean excellence. But, great as these are, they almost pale before similar feats which have been accomplished in the building of the "Great Temple of the Sun," at Baalbek. Here we see in the basement of the temple stones of such dimensions as to take their place amongst the wonders of the world. One stone placed in position, 20 feet above the ground, measures in length 69 feet, in width 10 feet 5 inches, and in depth 13 feet. Another stone, lying in the quarry ready for removal, measures 69 feet in length, and is 14 feet square, the weight being calculated at 1,100 tons. The entablature of this same temple, with all its Architectural enrichments worked on it, is got out in solid blocks 14 feet deep, and when lifted on to the columns which support it, reaches a total height of 90 feet from the ground. Let us come to more modern times and nearer home, and see if these Architects were also Engineers. The late Robert Stevenson, who as an authority we may mention on the same line with Sir William Armstrong, told me that he had measured the Lantern of our beautiful Tower of St. Nicholas, Newcastle, and found the weight to be 70 tons, adding, "I have always regarded the construction of it as one of the greatest engineering feats." For myself, I always look on the construction of that



FIREPLACE OF AN ARTIST'S STUDIO.

* We have pleasure in giving prominence to the opening address of Mr. Archibald M. Dunn, President of the Northern Architectural Association. We are able to exclusively publish this interesting paper, with the conclusions of which we are in entire agreement. Indeed, they voice the attitude to Architecture repeatedly expressed in these columns. The Article will be concluded next week.

beautiful mediæval form, the Gothic Spire, as no mean engineering effort, and, I think, the Architect who first reared the delicate shell work of stone, varying from 11 inches to 6 inches in thickness, which forms the spire itself, and was satisfied to carry the same to the height of 300 or 400 feet, and felt that it was safe, must indeed have been a daring as well as a scientific man, and, I confess, when I came to build spires myself, although I had gone carefully into the construction, and had the old examples before me, I could hardly realise that such slight and delicate construction was all that was necessary to be self-sustaining, and, at the same time, sufficient to resist the pressure of the winds at such great altitudes.

(*To be concluded.*)

DECORATION IN PUBLIC BUILDINGS.

By WALTER CRANE.

IN connection with the Arts and Crafts Exhibition, a lecture was given to the members of the Society, on Thursday night, by Mr. Walter Crane, who said, there appeared to be two theories regarding mural decoration: one might be termed *Organic Theory*, in which the decoration is an essential and integral part of the structure to which it gives final expression; and the other, the *Inorganic Theory*, in which decoration is considered merely as so much surface ornament, and often not so much for composition as to conceal structure or to furnish a mosaic for it. With the development of Gothic Architecture, *sculptured decoration* (or, indeed, decoration of all kinds) became more and more important, while still strictly organic, being used to ornament structural necessities, such as the ribs and junctions of interior vaults, also for clustered shafts, the tracery of windows, as well as spandrils of arches, corbels, arcades, canopies, parapets, and so forth. One cannot separate the decorative features of a Gothic building from its structure. They are an organic part of it, as the leaves and flowers are of a tree; and the sculpture of a Doric temple is also organic, though on a different principle. In the course of social and Architectural evolution, however, we have become somewhat mixed and composite in our Architectural styles. With the complexity of life, complexity of form has increased, and the result is that modern buildings have lost, to a great extent, that impressiveness which is due to simplicity, and that organic character, or relation between structure and decoration, which he had endeavoured to indicate. Each period has left its Architectural deposit, but the present century has been more destructive than the Great Fire as regards Old London. The commercial spirit of the age is reflected in the vast structures which seem to be supported by sheets of plate-glass. The many-storied flats and the cloud-capped towers of the modern hotel inspire scarcely any other feeling than one of dread lest they should fall down. Nevertheless, as a nation, we possess many beautiful survivals of by-gone days. There seems to have been a constant endeavour on the part of Architects and builders, since Sir Christopher Wren, to reconcile the classical pediment and pilaster with public, domestic, and street Architecture; to design imposing façades of Greek and Roman temples, and then to brick up the portico and cut windows in it; to repeat the pediment over every window, and to make a Doric, Ionic, Corinthian, or composite portico over every door. This classical taste has

LEFT ITS MARK

on London with more or less happy effect. Mr. Crane thought he need only refer to the residences on the south side of Regent's Park and to the British Museum. The City, of course, has had its share in such buildings as the Bank, where, to say the least, the effect has been anything but a happy one. Further, we have the Royal Exchange with the memorable inscription: "Great is the Earth and the fulness thereof"—this, probably, for fear that it might be forgotten in the very heart of finance, and in the neighbourhood of the valuable sites in that district. The Mansion House also has received its complement of classical *pillars*, probably in order to inform the public at large that *the pillars of society* are being entertained very frequently in that building. We may consider the subject of the Decoration of Public Buildings from several points of view—(1) from the point of view of public sentiment and national characters and ideals; (2) as the expression of the design, object, and purpose of particular buildings, interior and exterior; (3) from the technical point of view of methods and materials, adaptation to climate and conditions. We are often credited with being a reserved race; somewhat sombre, even in our pleasures; clinging to fixed habits and traditions, averse from outward display, self-conscious, distinguished more for business qualities than lively imagination, and possessing an eye more generally fixed upon the

MAIN CHANCE THAN UPON MURAL DECORATION,

and more bent on material prosperity than spiritual beauty. Does not the general aspect of our big towns on the whole suggest, or reflect in the character of their public buildings, such characteristics, so far as they are capable of being expressed in Architectural design? First of all, Architectural evolution and the development of design has not kept pace with the social evolution and the advance made in machinery and science during the 19th century. Look at the revolution in the means for obtaining light! In the olden times of the candle, the lamp or the torch, these appliances were quite in harmony with their surroundings; but, owing to the invention of gas some 50 years ago, our buildings have been disfigured rather than ornamented by gaseliers, which are intended to replace the old appropriate and Artistic designs for candelabra; the same applies to electric light installation: electric light and fittings are often planned on the principle of the gas-pipe. At the time when these new appliances came in vogue, Architectural design was not up to date enough to be able to harmonize these new features with the styles and methods of building which were then in use. English law guards its dignity in a fortress of the 13th-century Gothic style, whereas the Life Guards' Headquarters, in Whitehall, looks anything but military, and ornament is conspicuous by its absence. We all admire the Albert Memorial, and the friezes on the Albert Hall are, on the whole, very pleasing to the eye. Passing on to Westminster, we find that the decorations of the National Speech House consist mainly of towers. Towers, indeed, play an important part in the decoration of cities. What would Florence be without its towers? As to the interior decorations of the Houses of Parliament, Mr. Crane said he liked Poynter's St. George and the Dragon in the House of Commons least. The best decorated interior in London, in his opinion, is the National Gallery; "I mean, of course, the pictures, which, after all, are the finest interior decoration imaginable; but then the pictures on the walls of the National Gallery were executed by Italian masters! Let us hope that the spirit of St. George continues to exist in the House of Commons, and that St. George exists not only on the reverse of our coins; I have a strong belief that St. George would never have sanctioned the spoliation and extermination of half-armed Africans by means of Maxim guns and such like implements of civilisation. The most successful building I have seen, with regard to mural decoration, is the new Public Library in Boston, Mass.; it is a two-storied structure of imposing dimensions, built in white stone, with circles in black, which surround designs illustrating the early printer's craft. The interior decorations are in equally good taste and

TRULY MAGNIFICENT;

the wall decorations in the large reading room are executed by such men as Puvis de Chavannes and others. I will only just refer you to the Natural History Museum at South Kensington, with its terra-cotta monkeys and other animals for gargoyles. We are all familiar with Westminster Abbey, where many a record in stone brings us back to the grand and stirring days of the past. The decoration of public buildings should be the

HIGHEST FORM OF POPULAR ART,

as it was in the Middle Ages, when a town-hall or a Church was no bad equivalent for a public library, stored with legends and symbols, which impress themselves upon the mind through the unlettered though vivid language of design. At present, the highest form of popular Art appears to be the poster, which, if it does not always decorate our buildings, at least often covers them. And, what is most astounding, some of our most eminent Artists help to contribute to these public waste-paper baskets. Perhaps the new development of municipal life and spirit of our towns may do something by fostering a sense of citizenship and local pride, and centralising and giving proper life and purpose to the vast jungle of bricks and mortar we call cities or districts. We seem to have reached a period of development when street improvements generally take the form of clearances for the traffic. Primitive man had to clear the primeval forest to build himself a log hut or simple dwelling, and civilized man has to clear a forest of buildings. We cannot, it seems, get Artists appointed on the County Council. Municipalities and vestries are too much absorbed in the fundamental difficulties of contracts and the necessities of drainage, paving and lighting of vast and populous areas. These ought they to have done, but not to leave the other undone. The history and legends of localities should be carefully preserved and identified with public buildings, such as town-hall, schools, and meeting places of all kinds. In France, Artists receive encouragement by being permitted to decorate the public buildings of their native towns; with us such opportunities are wanting; quite lately, however, Manchester has made a move in this direction. I am speaking of the paintings in the Manchester Town Hall. At present Painters mostly work for the dealer. Churches from time immemorial have been the most sacred of public buildings, and have been the recipients of untold treasures of Art and craftsmanship of every kind, and still seem to make the greatest and most permanent demands upon, and to offer the largest opportunities to the designer, as is clearly demonstrated by our Exhibition. There is another variety of public buildings, however, which might well take some thought and work of the Artist. I mean The School. Here again, permanent mural design might find a home and fill an important part in stimulating the imagination, in forming the mind, and thus perhaps make good citizens of our young by means of painted histories and typical figures. It would certainly lighten the teacher's task immensely. We cannot get outside our times; if we do not care for harmony and beauty in our public buildings; if we are entirely absorbed in seeking our

INDIVIDUAL PROSPERITY,

and are oblivious of the social bond, we are not likely to get noble buildings or impressive decoration. We must remember that a people without Art, collectively speaking, is inarticulate, and that, after all, the highest and most vital Art is the expression of character, the point of view of methods and materials. For the decoration of public buildings the principal means and materials are: sculpture in marble and stone, terra-cotta or bronze, mosaic, marble and glass, stained and painted glass, leading and lead work, metal and iron work, cut brick, sgraffito, wood-carving, painting in oil, fresco and tempera, plaster, stucco and gesso, tile-work and glazed faïence, also panelling, inlay, and tapestry. Owing to climatic considerations, sculpture has been the chief means of decorating European buildings externally, both ancient and modern, and although it has a severe struggle for existence in our times of public apathy and coal-smoke, the Sculptor remains the chief decorator. Terra-cotta seems to wear very well and keep its colour through London smoke. Mr. Conrad Dressler and Mr. Harold Rathbone, each in different ways, are engaged in noble artistic efforts to revive Della Robbia ware, and adapt it to modern Architectural decoration, and both have done remarkable and interesting work in that material. Of course, due consideration should be paid to the climate in selecting a style. For instance, those fine classical structures of the Greeks and Romans, which impress us by their grandeur and magnificence under the blue and always serene sky of Southern Europe, fail to do so in, and are unsuited to, our damp and foggy climate. In the decoration of public buildings the attention should be centred upon some leading and distinctive feature, and the effect should depend upon the use of one kind of work. If sculpture is to be the main feature, concentrate the interest upon the sculpture; if mosaic, then everything must be subsidiary to it. The same principle applies to material."

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

Notes on Mural Decoration.

By HARRY THOMSON, Glasgow.

IN submitting these Notes on Mural Decoration, it is not my purpose to give anything more than a brief outline of the history and practice of the Art of Mural Decoration, together with such facts as have come within my knowledge, from what I have seen, and what I have read.

It is a matter of very little importance who first practised the Art of Architectural Decoration, but from the evidence of temples and other relics of antiquity, the Egyptians were the first among nations to show appreciation of the effects to be obtained on wall surfaces by means of colour. The method employed by the Egyptians seems to have been that of Tempera, and, occasionally, Encaustic. In Tempera painting the colour pigments were mixed with weak size or other substance of a glutinous quality, in sufficient quantity to attach the colouring matter to the part to be decorated. Owing, perhaps, to the durability of the pigments employed, and to the purity and preserving qualities of the climate, the work of that noble race exists before us as fresh and pure as if painted yesterday.

Encaustic, or Wax Painting, seems to have been employed to some extent in Egypt, and, later, more extensively by the Greeks and Romans. In this system the pigments were mixed with wax rendered fluid by the addition of oil or a resinous liquid added in sufficient quantity to enable the colour to flow freely from the brush. The surface, whether of wood or stone, was first prepared by coating with wax, and thereafter painted with the waxy pigment till the design was completed. Then heat was applied by means of a brazier, at a short distance from the surface, till the wax melted, and as it were fused the outer coat of pigmented wax with the under layer, and in that manner imprisoned and protected the colour.

As showing the durability of this class of painting, and as possibly another quality in its favour, encaustic paintings may be seen which are supposed to be nearly three thousand years old, and are even now very little discoloured through the lapse of time. The Greeks, however, and later, the Romans, seem to have encouraged this Art, and specimens of some beauty are frequently seen in interiors on walls or in panels.

Fresco Painting as a means of decoration was practised by the early Greeks, and very likely, too, by the Egyptians. In this method the wall was plastered with lime, and, while still damp, water colours or colours mixed in lime water were washed over the surface, outlines being indicated here and there by lines or incisions made with a pointed stick. Owing to the fact of the plaster drying or "setting," only a part of the work could be done at a time, as may easily be supposed, and the work proceeded with in successive stages till completed. If the result when completed seemed unsatisfactory, the only possible remedy was to hack the work to pieces; hence an Artist working in fresco encountered no small difficulty in decorating by this means.



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The Art of working in Mosaic was probably known to the Egyptians, though so far as I am aware no specimens of their practice in this Art have survived, but of Greek and Roman examples there are many which show that the Art was of extensive application on walls and pavements. The Byzantines and the early Italians made continual use of this fascinating Art, which, though simple in theory, is beset with difficulties which are only overcome by repeated and enthusiastic application. In his usual practice the mosaic worker drew his pattern on the dry plastered wall, and, selecting a portion for his day's work, cut into the plaster with a chisel to the depth of an inch or two, and having at hand some cement and a trowel, filled with cement the space thus made, subsequently inserting pieces of "tesseræ" *i.e.*, chips of stone, marble or glass, of the desired color. From the quick-setting quality of the cement only a part, and that a very small one, could be done each day, and, as will be imagined, the work proceeded rather slowly, so slowly in fact that in many cases a comparatively small work would take years to complete.



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The Art of Mural Decoration received great impetus from the advent of Christianity, when truly, religion and Art may be said to have walked hand in hand, and by degrees as the wealth of the Church increased, and power and luxury required the necessity of gorgeous display, the service and talent of men imbued with religious feeling and discernment for colour and beauty of form, were called into request to satisfy a desire to contribute to the glory of the Mother Church. In these times, indeed, all men may be said to have been Artists alike, for all were inspired from reverence and from religious faith to lavish in profusion genius and talent in the adornment of places set apart for worship, and vast Cathedrals were reared whose pavements glittered with mosaic and marble, whose stone walls, diapered and powdered in vivid tints, gave background and relief to panels and niches of martyred saints, while piers, arches and mouldings seemed alive with glowing colour.

High up, over head, would be seen a roof whose vast expanse shone with stars, a heaven of azure and gold, while windows of ruby and sapphire and emerald shed their dazzling lustre on marble, on jewelled altars, shrines, and sculptured images of gold. Our forefathers had a true and honest love for colour and delighted to show it in this manner, a little exhausting, perhaps barbaric, but surely better than whitewashing Nature or clothing her in drab. Of the decay of the Art of Mural Decoration and its present revival there is little need to speak. There is a wide-spread evidence of a wholesome reaction to a better state of things, a return to the study of the old while asserting what is new in modern expressions of thought.

In the modern practice of decoration there are some methods which, though suggested by older practice, seem intended as easily and quickly executed substitutes for the more enduring fresco, encaustic, and mosaic, and of these we may proceed to describe those of the leading types.

Sgraffiato, an Italian Art, has some resemblance to the first process of fresco painting. The design is scratched or incised on the nearly dry plaster ground. This method suggests immediately how different effects may be produced by putting successive layers of coloured plaster on the wall, and chiselling off certain portions of the different layers, thus giving an effect such as we see in cameo work.

Stucco-duro, a method sometimes employed for wall decoration, the material for which is composed of lime, sand, and marble dust. The work is modelled in relief, and, when dry, is painted.

Working in Gesso may be said to be a painter's rather than a sculptor's Art, and consists in painting the wall or other surface with a mixture of plaster of Paris and glue, or some such composition, high relief being obtained by repainting the parts desired to be raised, and still higher relief by modelling with teased wool soaked in the

mixture of plaster and glue, the work when dry being painted or glazed with colour.

Stereochrome, or Water-Glass, is a modern method of working designed to take the place of fresco. In this method the wall is wetted with a sponge and the colours laid on while the wall is damp. When dry the work is fixed by spraying through a rose with weak water-glass (a mixture of silicate of soda and water), somewhat in the manner of fixing charcoal drawings. An extremely thin coat of glass is thus left on the surface of the painting, and is supposed to protect it from atmospheric influences.

Spirit Fresco is similar to water-glass in the method of working, the fixing vehicle in this case being a compound of certain gums dissolved in spirit of wine.

Oil Painting is a comparatively modern method of decoration, and consists in coating the wall or other surface with colour pigment mixed in boiled oil.

Distemper or Tempera Painting has been already noticed, is the oldest, and in my opinion the best of all processes in use for the decoration of interiors.

Other methods of decoration may be enumerated, such as sculpturing in stone and marble, carving in wood, covering surfaces with woven fabrics, such as tapestry, painting on canvas, covering with wall paper, leather, &c., and the filling of window spaces with glass, all of which, though slightly outside the scope of my paper, are intimately connected with the art of Mural Decoration, but sufficiently well-known to need description.

Of all the processes enumerated, fresco, encaustic, and mosaic are the three Arts which seem deserving of encouragement, but have fallen into disuse, simply, I should suppose, on the ground of utility, their great cost, and the delay necessary to complete work executed by these methods. Oil painting, distemper or tempera, and the use of wall-papers, are of very general application in the decoration of our houses and public buildings, and all three are economical in cost, of ready application, give an effect with little delay, with the additional advantage that the work can be easily altered and remedied while in progress. An argument sometimes advanced against the use of wall-papers is the fact that their use is unwholesome in a sanitary sense, that papers gather dust, and microbes of all denominations find there a convenient and happy hunting ground. I venture to think that the use of wall-papers is clearly being overdone, and that most rooms would be more artistic in aspect and decorative in feeling if painted in oil and distemper alone.

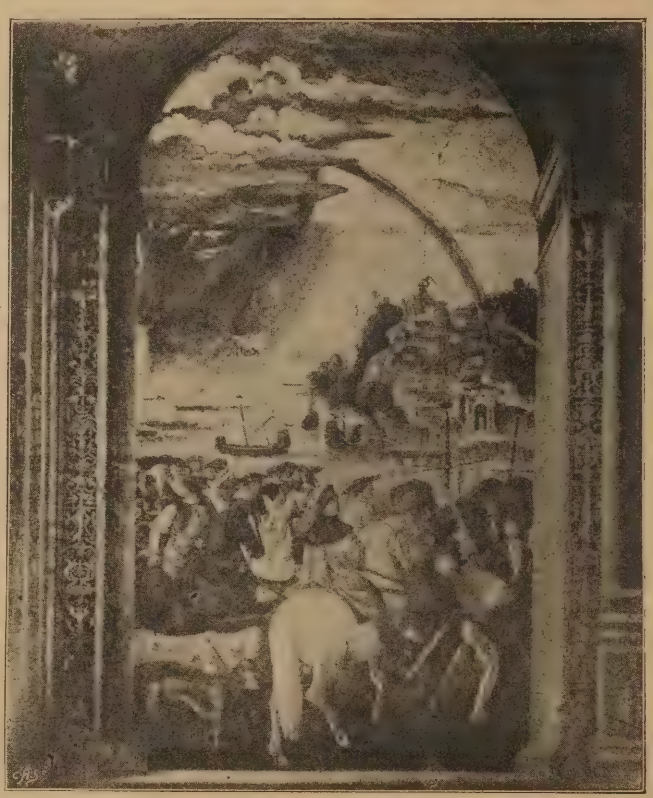
It is true there are many cleverly designed wall-papers produced by Artists of experience and of note, and wall-papers are certainly a very handy means of covering a wall space; but are, I think, in most cases entirely unsuitable in colour and design and scale to most rooms.

The pattern, too, is terribly assertive and monotonous from the necessary repetition compelled by the process of printing. Distemper and oil paint, on the other hand, are entirely within the means, and under the control and skill of the decorator. The work produced on a wall by these means is more direct, and more pleasing to the eye. A certain discrimination, however, must be exercised in the application of oil or distemper in the presence of damp existing within, or outside of, the wall, tempera being best able to cope with internal damp, oil paint having most power of withstanding moisture from without the wall. In distemper painting the usual practice is to have a vessel containing whiting and water and size, adding the powdered color at intervals until the desired tint is reached. When painting in oil the colours may be mixed with boiled linseed oil, and a little litharge, or sugar of lead, added to hasten the drying, turpentine being added to thin the colour if necessary. Oil paint dries with a certain gloss, and this shining effect may be increased by varnishing, or, if a dull "mat" surface be desired, somewhat similar to the surface of distemper painting, a varnish called "mat varnish" (composed of wax and turpentine) is coated over the work instead.

Designs to be painted by hand are usually "pounced" through from an outline drawing, the guiding lines having been chalked on the wall with the assistance of the plumb-line and compasses. Stencilling is often resorted to as a means of decorating large surfaces. The pattern is drawn on a sheet of cartridge paper which has previously received a coat of "knotting" varnish (shellac dissolved in spirit of wine) to make the paper stiff and non-absorbent to paint. A knife is used to cut the open parts of the pattern, and the necessary ties are left.

Gilding is the sheet anchor of the decorator whose work "hasn't quite come up to the mark," and "needs just a little picking out here and there." In my opinion gilding is really unnecessary in most cases. The money saved in gold might be well spent on some worthy portion of the decoration.

Graining, in imitation of different woods, is too often practised, and the practice is one which can hardly be defended. I do not object to the practice of graining in itself, but to the servile imitation of the grain of wood. It seems to me that a very satisfactory effect could be had by using the graining tool, or comb, to give fantastical shapes suggesting certain forms in design, but not an imitation of knots and cracks.



PINTURUCCHIO, 1454—1513.

The imitation of marble is open to the same serious objection, the time spent in the pursuit of this so-called Art being practically wasted, that is, so far as the advancement of Art is concerned. Still, good effects might be had by blending colours harmoniously together, without, of course, imitating the streaks of marble.

I think it is a pity the work of the mural decorator should be considered a thing entirely separate and apart from the work of his fellow craftsman. It is perhaps a necessity of the times, from economical reasons and expediency, that the work of decorating the most ordinary building should be allotted to half-a-dozen or so of individuals whose work is quite dissimilar in tone, colour, style, and feeling. I do not know where the fault lies, or what remedy to suggest, unless, possibly, there is a little jealousy among craftsmen and an unwillingness to allow one's province to be intruded on by another, a dread of competition or what not, that prevents those joining hands whose pride should be in a beautiful result produced by a united rather than an individual effort. Perhaps the Architect should be his own sculptor and modeller, carver and decorator, and design such things as tapestry, mosaic, tiles, furniture, and superintend the exhibition and arrangement of pictures, bric-a-brac, china-ware, and glass-ware, in fact, everything that goes to produce a harmonious whole; a difficult and perhaps impossible ideal to reach, but one much to be desired. At least, however, the Architect and the different craftsmen engaged in the decoration should be in direct sympathy with each other. Let us suppose, then, the same guiding hand and brain will direct all operations from first to last, and examine what the decorator will proceed to do when confronted with a wall which it is proposed to decorate.

I take it for granted he will confine himself to the use of oil and tempera, abstaining from the use of wall-paper, which is, from the reason I have already given, generally unsuitable for use in Artistic decoration.

A design will have to be sketched and allowance made for the introduction of sculptured panels, gesso and fresco or encaustic paintings, mosaic, tiles, brass and iron work, bronzes and placques, sconces, and in fact everything that is seen on or against the wall, and all this material reduced to order and harmony with the scheme of decoration.

As to the style to be followed I do not quite see why decoration should be of a particular style, any more than that Architecture should be of a particular style. Certainly it would be incongruous to put Hindoo ornament on a building of classical influence; but given a certain space to decorate without being particularly hampered by prudish considerations of style, the designer will approach his work with something like a feeling of joy, earnestly endeavouring to produce a result in harmony with its surroundings and yet with an individuality of its own.

Pompeiian wall painting embraces, to my thinking, all that it is desirable to emulate in decoration, not, of course, necessarily to copy. The wall is usually divided into panels and spaces alternately, the panels by their enrichment and detail contrasting with the plain space adjoining, and producing on the mind a grateful feeling of placidity and repose. The mural decorator who aspires to work with the feeling of Pompeiian decoration, would be sadly hampered in his aspirations by the prevailing fashion of planning rooms. Usually the average room has on the ceiling a florid enrichment or centre plate, and at the top of the wall a cornice making a straight hard succession of lines round the room, and at the floor a skirting board without a break to its monotonous undeviating course.

Certainly a fairly creditable decoration can be executed even under these disadvantages, but the result is, in consequence of the initial difficulty put in the way, far from perfect.

But, supposing the Architect and craftsmen have laboured together to produce a general effect pleasing to the eye, individual in the treatment of its parts yet subservient to the effect of the whole as a picture, how different are the conditions and how satisfactory are the results.

Let us imagine a room decorated under these conditions, and examine the progress of the work. The ceiling of wood or plaster with beams showing at intervals and inserted into the wall. On the wall, shafts and mouldings of plaster or wood supporting the beams. No cornice in the usual acceptation of the term; the wall covered with plaster and divided into panels decorated in sgraffiato, mosaic, or gesso. At the under portion of the wall, wood panellings stepping or curving to the floor, and perhaps the floor itself in two levels. The windows high up in the wall and reached by several steps, the light admitted by that arrangement being the top side light so restful to artistic eyes.

Such a room would need no framed pictures for its embellishment, for the wall itself would contain the pictures in stone, marble, fresco, and mosaic. It may be said that this ideal is difficult of attainment on account of the initial cost involved, and that may be true, but if the money paid in the purchase of easel pictures and proof etchings were expended in this more legitimate decoration, a more harmonious and possibly not a whit more costly picture would be the result.

That there is a tendency this way I think all



PICCOLOMINI LIBRARY, SIENA.

will allow, if one may judge by the progress already made in this direction by some of our Art-fostering enthusiasts, and I suppose the time will come when a house will be sold, not merely on its merits as a house well built and drained, but as a store-house of things that are beautiful.

In treating the subject of my essay, I have taken it for granted that Mural Decoration refers to our houses and our Churches. Our public buildings are rather impossible to decorate, and we have no Angelos or Titians to decorate them for us. And, indeed, our Art should be domestic, because our lives are domestic. We lead indoor lives shut up with our families, and we naturally feel impelled to make our surroundings pleasing to the eye. The agreeable task of decorating a wall surface is not rendered less agreeable by practical considerations of economy. Indeed, this very consideration is an advantage rather than otherwise, the ingenuity called forth to economise within certain limits exercising a restraining influence on one who is inclined in his enthusiasm to run into riot and extravagance in the practice of his Art, and a restrained simplicity, the first great lesson we have all to learn, the practical result.

Notwithstanding, a knowledge of detail is essential though its persistent exhibition is a thing to be avoided. Simplicity should be the guiding principle in all decorative work intended to stand the test of cultured criticism, and detail, where shown, should be put in with a reluctant, grudging hand. This quality of simplicity leads almost naturally to a quaintness and originality in design, and the value of these qualities can hardly be over-rated, but, like riches, these may be said to be the root of all evil, and a barbaric quaintness and ugliness a thing to be avoided if we would not have people turn from our work in disgust. The use of figures in the decoration of walls is a charming application of talent, and already we see stencilled figures which are intended to take the place of the usual florid wall-paper; and, speaking of stencilling, I may say I am glad to see distinctly signs of the revival of this Art, and a better appreciation of its capabilities as a means of giving expression to form in decorative work.

The very necessity of having to show ties to keep the stencil together serves the useful purpose of simplifying the form of the design, giving a severity and conventionality which, in this form of Art, has a peculiar charm of its own, perhaps this very quality of conventionalty as opposed to unrestrained realism.

Realistically treated figures and plant form are, I venture to think, entirely unsuitable for treatment in Mural Decoration, no matter how excellent in execution their detail may be. A strictly Architectural feeling should pervade the work, a squareness and solidity, such as one sees in the work of Michael Angelo and Alfred Stevens.

On this subject Mr. Watts has said — "the highest expression of painting as an intellectual effort belongs to designs composed with reference to Architectural combinations, and I cannot but feel that when the habit of requiring and producing such works falls into absolute disuse, Art must take the lower place of only a luxury." "Landscapes are scarcely permissible as a treatment for surface decoration, unless worked out in a very archaic manner. The one objection to the use of landscapes is the suggestion of "a hole in the wall."

The addition of figures might obviate that objection and give a more surface-like effect. The colour sense is denied to some, and sparingly extended to others. Some again have the feeling for colour to excess, and in the endeavour to gratify that feeling neglect other equally important considerations, the simplicity and beauty of form which should embrace the colour. It seems a pity that we should have a fashion in colour, that one year the prescribed colour should be magenta, and the next year, green. In effect these fashions make our Artist jaundiced, and he, perhaps unconsciously, paints magenta or green in order to be in the fashion, emulating in his changes of allegiance the example of the Vicar of Bray. However, the Artist who has a true love for, and a perception of colour, will appreciate all colour for its own sake.

He will colour well while he colours unconsciously, because he colours without prejudice, and while he has a hankering for beautiful colour, will be ever on the alert for the goodly form which surrounds it. A great deal has been said as to the desirability of securing permanence in works of a decorative character, and some Artists have been at great pains, while endeavouring to accomplish that end, to follow the example of the old masters who ground and prepared their own colours. I do not exactly see how the question of permanence is one of very great importance. An ordinary oil painting may last for three hundred years, and this time in the majority of pictures is far too long. An existence of fifty years is quite long enough for all but the most important works of Art. It is questionable if any good object is gained by philosophizing much in Art matters, and really, in the hurry of every-day affairs, we have little time to spend in oppressing our minds and hearts with networks of theories. DLGK

Certainly, there are underlying rules which govern Art, general principles and canons of taste which must be obeyed to a certain extent, but beyond that the mind should have full liberty to wander at will in the dreamland of invention, holding the mirror up to Nature, and reflecting back something human, full of manliness and grace; "Nature," as Emerson says, "passing through the alembic of man."

A NEW organ and choir gallery, built at a joint cost of £500, were recently formally opened at Kingswood Wesleyan Chapel.

TWO stained-glass windows, erected to the memory of the late Mr. Alexander Mackay, in the baptistery of the Parish Church of Trowbridge, have been unveiled by the Bishop of Salisbury.

THE new dock recently finished at Dunkirk on the north coast of France is the largest one in the world. It is 600 ft. long and 80 ft. wide, and will be able to receive the largest vessels at any stage of the tide. The dock has been seven years in construction.

THE Duke of Buccleuch has resolved to build a new bridge over the River Esk, about two miles above the town of Langholm, just below the mansion of Potholm. The late Duke of Buccleuch thought of bridging the river at this point about thirty years ago, but for some reason the project was abandoned. The new bridge is to have stone piers and abutments and iron girders, and will have a carriage-way 10 ft. wide.

AN Architect who had agreed to accept £15 for the design and superintendence of the erection of a house which was to cost £878, has been mulcted in £200 damages for having given certificates to the builder for no more than 85 per cent. of the value of work executed. He has been very justly made to pay for having underbid his brethren to an extent which could not have permitted him to give the needful supervision.

THE Liberal Unionist Club premises in Edlestone Road, Crewe, on Saturday morning suddenly collapsed with a loud crash, and fell into the street. The accident occurred soon after six o'clock in the morning. The roofs of the two houses, which formed the club premises, fell in, and the whole of the top floors fell through into the rooms on the second floor. The rooms of the second floor immediately collapsed under the weight, and the houses were in ruins. Mrs. Beech, the wife of the caretaker, was buried in the ruins, and was extricated with difficulty and conveyed to the Cottage Hospital. The other inmates fortunately escaped unhurt.



MOSAIC AND SHELL NICHE, POMPEII.

Sir Christopher Wren and his Work.

AN HISTORICAL AND CRITICAL SKETCH.

By ARTHUR STRATTON.

Read before the Liverpool Architectural Society, and published exclusively by the Builders' Journal.

PART II.—THE WORK OF WREN.

(Continued.)

AT St. Dunstan's-in-the-East, Wren indulged his fancy and gave us the well-known Gothic spire, which bears resemblance to the original St. Mary-le-Bow spire and much larger example still extant at Newcastle. In this, as in nearly all, the safety largely depends upon the use of pendentives, which carry the thrust well down the walls, sometimes to the belfry floor. Possibly the latest of all to be built was the tower of St. Michael, Cornhill, which study follows a Gothic type. Wren may have worked with ease and pleasure after such models, but it cannot be allowed that he ever obtained such mastery over them as will entitle him to be considered a great Gothic Architect. In fact it is one of my main endeavours to show that the spirit of the age was adverse to any such development on his part, and that he fully expressed the sentiments of the times in which he lived in the phase of classic Art which he made his own. His knowledge of Gothic forms was complete, but it can never be given to any man to excel at the same time in two diametrically opposite branches of Art. He treated all examples which came in his way with reverence, and as we see, when circumstances demanded it, he deliberately laid aside his own convictions; but he would willingly have recased any in "a good Roman manner" nevertheless. His details, not at any time over-refined, owing to his lack of training, quite miss the true Gothic spirit, as may well be expected. It is, however, only right to assert that the present excellent state of preservation of most of his work in London, is largely due to his oresight in this respect; a more delicate treatment would surely have succumbed to atmospheric influences. The best materials alone ever entered upon his work. The stone almost invariably came from Portland, for Wren had full control over the quarries there in his capacity of Surveyor of the Crown Lands; his timber was sound English oak, and his roofs were covered with lead such as is seldom met with now-a-days.

A few words must be said as to the internal arrangement of his Churches. As the plan itself, so also did this grow out of the requirements. The chancel arch, distinctly defining the limits of nave and sanctuary is lost sight of, and a wooden screen in most instances fulfils the functions. The altar was enclosed always within a rail, sometimes of marble, but generally of wood; it was raised a few steps only above the body of the Church.

Wren did not use lofty flights of steps at the east end of his Churches. The greatest care and skill was bestowed upon the east wall, which was panelled and elaborately enriched in oak. The panelling often ran all round the Church. The pulpit was naturally given great prominence, and, together with its sounding board, was often made an exquisite piece of ecclesiastical furniture. The fonts, too, with their covers, are unique specimens of the carver's skill, generally of the baluster type. The system of pews and galleries which was forced upon Wren, never received the artistic handling which ought to have resulted from a necessary provision; in fact, with a few exceptions, they offend by their excessive ugliness. Wren urgently advocated benches, but the columns, in so many cases standing high upon pedestals, show that he had to design so that the bases would not be hidden.

The staircases within the towers are very cleverly arranged and almost seem to suggest a study of conchology. They never appear as external excrescences. The line of the of the steps always runs to the face of the newel and not to its centre, giving the best tread.

The open well staircase in St. Paul's, leading to the Library, is particularly beautiful, but many examples on a smaller scale, with excellent balustrades and wall dados, are to be found in his works, both ecclesiastical and domestic.

His domestic work is pervaded with a truly English feeling, and nothing can excel the beautiful simplicity and homely character of all that is left to us. Like the Churches these, too, are in daily peril, and it is quite difficult to identify many examples with any degree of certainty.

In his larger works, Wren always introduced the orders in their entirety, "his favourite Doric," as it is often spoken of, occurs again and again, sometimes with coupled columns as at Greenwich. He never allowed himself to be fettered by changeless rules of proportion, but evolved his own with a nicety which never fails to please the eye. The sense of security is never wanting, and his knowledge of graphic statics always saved him from violating natural laws.

"Architecture aims at Eternity" was a maxim with him. We have but to study his handiwork, and to endeavour to unravel the great truths, and to learn the noble lessons embodied in it, to see how he grandly lived and worked up to an ideal, high amongst ideals and far beyond the reach of the ordinary mortal.

"An Architect," he said, "should think his judges as well those that are to live five centuries after him, as those of his own time." Not half that period has passed away since his hand ceased to work, and, through widely different epochs, his influence, however slight, has scarcely been quite unfelt; whilst in these, our own eclectic times, there are manifest classic tendencies on all hands which it is not altogether impossible may not some day culminate in a strong and faithful allegiance to Wren and his work once more.

THE EXECUTED WORKS, IN CHRONOLOGICAL ORDER, OF SIR CHRISTOPHER WREN, 1632—1723.

When two dates are given for any one work, they define the approximate period occupied in the erection of the same.

Those works printed with an asterisk against them have since been destroyed or removed from various causes.

Pembroke Hall Chapel, Cambridge, since enlarged 1663
Trinity College, Oxford 1665–92
Trinity College, Cambridge, Library ... 1665–79
Sheldonian Theatre, Oxford 1668–69
*The Royal Exchange 1668
*The Custom House 1668
Emmanuel College Chapel, Cambridge 1669–77
*Temple Bar 1670–72
The Monument 1671–77
*St. Christopher-le-Stocks, Threadneedle Street. ..... Repaired 1671, rebuilt 1696
St. Mary-le-Bow, Cheapside. Steeple 1680 1671–73
St. Mary-at-Hill 1672–77
St. Michael, Cornhill. Tower 1721 1672
St. Stephen, Walbrook. Tower 1681 1672–79
*St. Benet Fink, Threadneedle Street ... 1673–76
*St. Olave, Jewry 1673–76
*St. Dionis Backchurch, Lime Street 1674 & 1684
St. George, Botolph Lane 1674–77
*Drury Lane Theatre 1674
Greenwich Observatory 1675
St. Paul's Cathedral 1675–1710
St. Michael, Wood Street 1675
St. Magnus the Martyr, London Bridge. Steeple 1705 1676
*St. Mildred, Poultry 1676–77
St. Stephen, Coleman Street 1676
St. Lawrence, Jewry 1677
St. James, Garlick Hithe ..... 1677 & 1683
St. Nicholas, Cole Abbey, Queenhythe ... 1677
*St. Michael, Queenhythe 1677
St. Mary, Aldermanbury 1677
St. Mary Woolnoth, Lombard Street. Repaired 1677
St. Swithin, Cannon Street 1678–79
St. Michael Bassishaw, Basinghall Street 1678–79
*St. Bartholomew-by-the-Exchange 1679
St. Anne and St. Agnes, Aldersgate ... 1679–80
St. Bride, Fleet Street ..... 1680 & 1700
St. Clement Danes, Strand. Steeple 1719, by Gibbs 1680–82
Ashmolean Museum, Oxford 1681–83
Christ Church, Campanile, Oxford 1681–82
*All Hallows, Bread Street 1681–84
St. Peter, Cornhill 1681–82
*St. Antholin, Watling Street 1682
St. Mary, Aldermary. Roof 1705. Tower rebuilt 1711 1682
Chelsea Royal Hospital 1682–92
Winchester Palace. Never completed 1683–85
St. James, Piccadilly. Tower later 1683
St. Mildred, Bread Street 1683
St. Augustine and St. Faith, Watling Street, Tower 1695 1683
St. Clement, Eastcheap 1683–86
*All Hallows-the-Great, Upper Thames Street 1683
Queen's College Chapel, Oxford 1683
St. Benet, Paul's Wharf 1683–84
Middle Temple, Fleet Street. Front remains 1684–88
Fawley Court, Oxfordshire 1684
St. Martin, Ludgate Hill 1684–85
St. Alban, Wood Street. Repaired 1685
*St. Mary Magdalen, Knightrider Street ... 1685
*St. Benet, Gracechurch Street 1685
*St. Matthew, Friday Street 1685
St. Mary Abchurch, Abchurch Lane 1686
Christ Church, Newgate Street. Steeple 1704 1687
St. Margaret Pattens, Rood Lane 1687
St. Andrew, Holborn. Tower refaced 1704 1687
*St. Michael, Crooked Lane 1688
Windsor Town Hall 1688
*Library for Arch. Tenison, St. Martin's Lane 1688
*College of Physicians, Warwick Lane 1689
St. Edmund-the-King, Lombard Street 1689–90
Hampton Court Palace. Additions ... 1689–94
St. Margaret, Lothbury 1690
Kensington Palace, Banqueting Hall and Alcove 1690–1706
*The Mint in the Tower 1691
St. Andrew Wardrobe 1692
All Hallows, Lombard Street 1693
St. Michael Royal, College Hill 1694
St. Mary, Warwick. Tower only 1695
St. Vedast, Foster Lane 1695
*St. Mary, Somerset. Tower remains 1695
Greenwich Hospital 1696–1705
Marlborough House 1698
*North Transept Front, Westminster Abbey 1698–1722
St. Dunstan-in-the-East. Tower only 1698–99
All Saints, Isleworth 1701–5

MISCELLANEOUS WORKS. Mostly Undated.

Greenwich Palace, for Charles II. Additions 1663
Ely Cathedral and Palace. Repairs 1663
Tower of London, additions, including the *Store House.
Tomb of the Princes, Henry VII. Chapel, Westminster 1674
Lincoln Cathedral, Library in Cloister 1674
Monument to Charles I. at Charing Cross. Restored, with new Pedestal 1678
*Hunting Seat for Charles II. at Newmarket.
The Deanery and Chapter House, St. Paul's 1684
*Chichester Cathedral. Repairs to Spire ... 1684
Salisbury Cathedral. Repairs to Spire.
Lichfield Cathedral. Repairs to Spire.
*A Marble Altar-piece for Whitehall.
Dartmouth Chapel, Blackheath 1695–1702
Morden College, Blackheath.
Bohun's Almshouses, Lee.
Merchant Taylors' Almshouses.
Trinity Almshouses.
*Sion College, London.
The School House, Winchester College.
*The Admiralty, Whitehall. Interiors remain.
Windsor Castle. Alterations, &c. 1698
Windsor. The Court House and one other house.
*The Duke's Theatre, Salisbury Court.
Halls of the City Companies. Numerous, but much altered since.
House for Duke of Buckingham. St. James'.
Do. Lord Oxford. St. James'.
Do. Duke of Newcastle at Clumber.
Do. Lord Allaston, and another for Lord Sunderland.
Do. Madam Cooper, St. James'.
Nos. 35 and 36, Lincoln's Inn Fields.
Doric Court, Council Chamber, etc., St. James' Palace.
*Easton Neston for Earl Pomfret. Wings only.
Chatsworth. East and West Fronts up to 1706.
*Royal Mews, Charing Cross.
*Barrack in Hyde Park.
New Road from Hyde Park Corner to Kensington.

(To be concluded.)

FRIDAY NIGHT AT THE A.A.

GARDEN DESIGN.

By F. INIGO THOMAS.

FASHIONS have come and gone in gardens as in everything else, and until lately for well nigh a century it has been the fashion to dispense with a garden altogether. That is to say, the substitute that has usurped its place is what in a better period would have been called a wilderness. In their haste to obtain a luxurious growth of rare shrubs and plants people have lost sight of the subtle charm that lies in a fusion of well-designed Architecture and symmetrical spaces with natural foliage. And, above all, they have ignored the sense of fitness that a frankly-designed garden bears to the Architecture of the house itself. It is significant to contrast the description of gardens that appear in the current horticultural journals with those of John Evelyn or any writer on the subject a few centuries ago. In the one, horticulture is the only point of view that is in any way recognised; in the other, a keen appreciation of design balances the interest taken in the growth of plants or in any new species that may come under notice. During the last few years the point has been discussed at some length in the leading papers and reviews. The point at issue was the comparative Artistic value of two rival methods, for there have never been more that two ways of laying out a garden — the "formal," and the so-called "landscape" or "natural" style. Paradoxical though it may sound, the formal method seems to have been the natural one until the middle of last century, and then, at a time when we should probably all agree that Art in this country was on the decline, there sprang into vogue this fashion of attempting artificial landscape in the neighbourhood of the house. On a large scale, such as one sees at Blenheim, it may be said to have proved successful in the course of years. But surely, until the garden itself has been fitly and properly laid out, it is no time to launch into improvements to the surrounding country. And, furthermore in a

"LANDSCAPE" SCHEME,

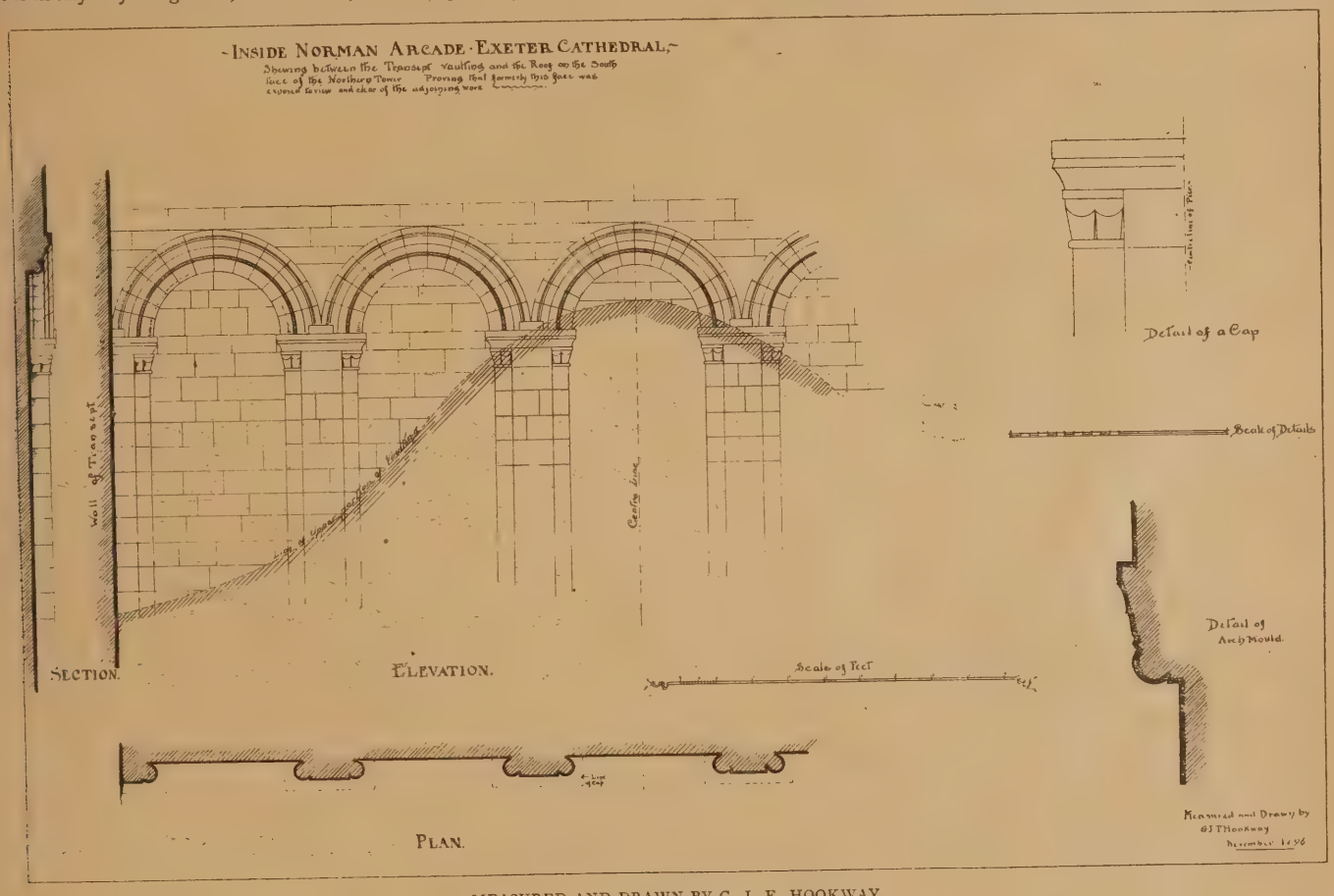
by the time it is nearly ready for criticism, all traces of the originator's hand has been "kindly obliterated by nature," which makes a comparison of results somewhat difficult. On reflection, the development of Architectural design in this direction has proceeded by very natural stages. In building, the prime object of man has always been to protect himself from the weather and from his enemies. To such a period belong all secular buildings, from the mud hut to the feudal castle. Next comes a stage in which men built for the pleasure of building, in addition to convenience. And lastly, a period into which is imported a third element, namely, that of display and magnificence. Beyond this stage nature seems to re-assert itself, and drive us back to the verge of barbarism; at least, so it would seem to have been in England, at any rate, judging from its Architectural history for the last century. House-planning was practised in a rude way in feudal times, but it was not till later that the idea of the house and garden making one concrete whole generated in the mind of the Architect, and not till later still that the approaches and planting of timber were so ordered as to form integral parts of a conception that was sometimes colossal in its proportions. Now, the formal treatment arrived at its climax in England in the second half of the seventeenth century, and in its fullest development we find

TWO DISTINCT SPHERES OF DESIGN.

There is the greater lay-out of avenues and approaches, scattered broadcast over fields and park land, heralding the proximity of the house; and there is the smaller lay-out of garden courts, and bosquets that cluster round the house itself. And, just as in planning a building, the plan, elevation, and section develop in the mind of the Architect by equal stages, so the two lays-out and the plan of the house itself were made to accord, in the schemes of the seventeenth century. In the earlier examples that are left, we seldom find signs of a greater lay-out. This may be for two reasons —either that the avenues have perished and never been replaced, or, because being anterior to the Dutch influence and that of Versailles, they had never borne these stately attributes. Avenues, to be seen to advantage, should be planted on wide plains or table lands, for the long perspective, which is their chief beauty, is lost in a rolling country. But, in the smaller lay-out, the opposite holds good, so that the ideal site to treat would be one with more or less fall towards a level plain stretching away to the distance. The whole scheme of buildings and surroundings was planned by the old masters of the craft so as to fall on four successive levels, a centre line running through from end to end, on which the principal features are plotted, and a certain symmetry on either side. Great pains were sometimes taken to preserve this balance, even in the

MOST DIFFICULT SITUATIONS.

The approach from the road to Colonna, some 600 paces long and bordered with lofty cypresses, parts opposite a fountain in the foot of a great cliff of masonry, and climbs by means of "pentes douces" to the first terrace. This, in itself, is a rise of 55 ft.; and since the original fall of the ground was in a diagonal direction, a great deal of masonry was required to bring one end of the terrace to the necessary height. At four points in the parapet there are massive banded columns, each bearing on its summit a slender iron cross. These four huge sentries stand out against the sky and the olive-clad hills with magnificent effect; but their *raison d'être* was not quite so evident until I found that the great vaults on which the terrace is supported were once the palace kitchens, and two at least of the columns were nothing more than ornamental shafts to carry the smoke clear of the windows. This terrace was probably paved throughout with "palombino," and used for the reception of magnates, with their retinues, from Rome. But there seems to have been a garden under the palace windows on ground that rises gently to the level of the main courtyard. Here the buildings lie on three sides of a court planted round with rows of elms, the fourth side being divided by a niched wall from the privy garden. This was laid out with plots of turf in borders of flowers, and two circular fountains in the centre. A fine arcaded loggia, by Ponzio, fills one end, and raised on a terrace opposite is an amphitheatre of inlaid marble fountains. From here a door and flight of steps lead back to the main-court entrance, and opposite this a wealth of flowers borders the foot of a great bastion wall that supports the bosquets and vineyards at a higher level still—that is to say, about 150 ft. above the level of the avenue. One curious thing is the small garden

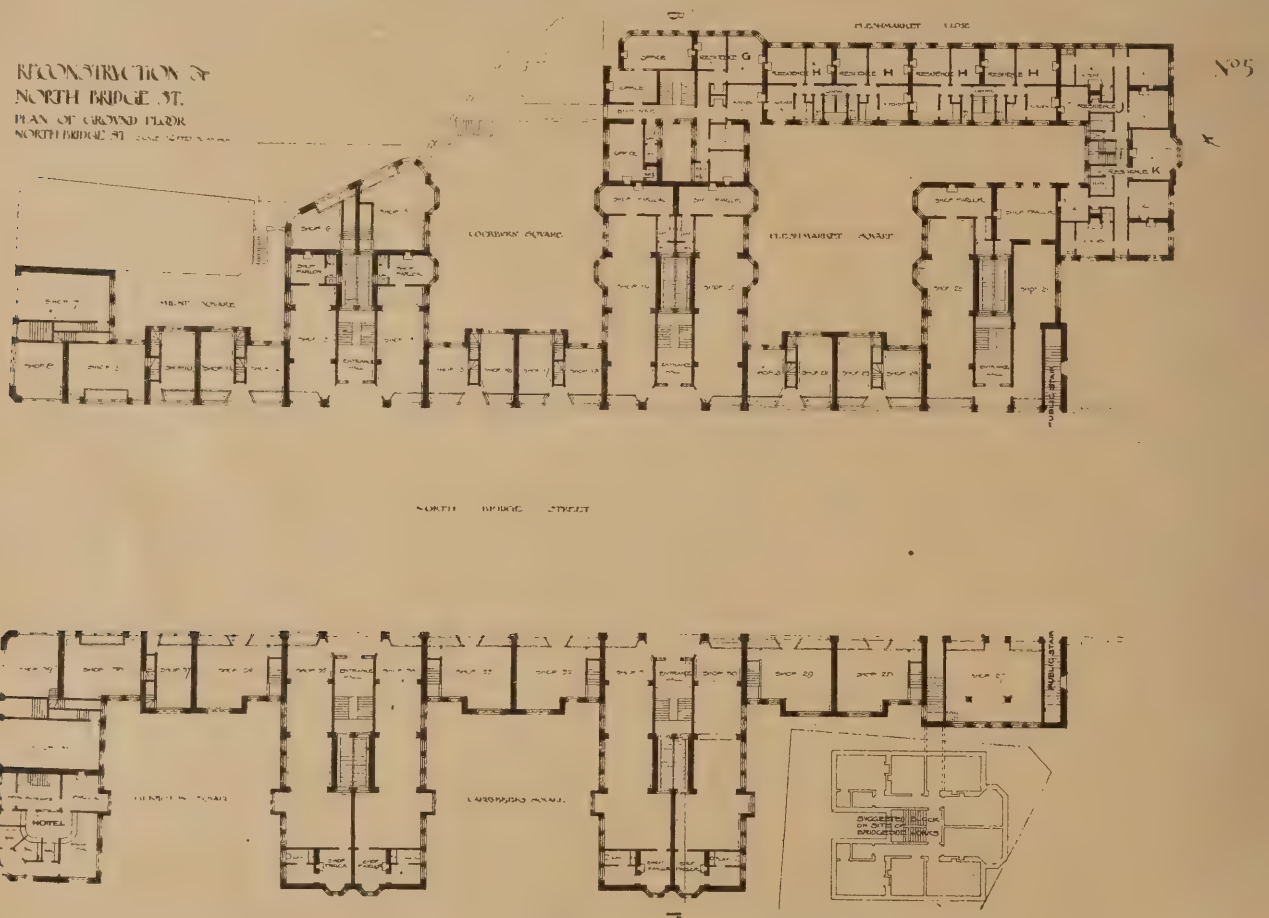


MEASURED AND DRAWN BY G. J. F. HOOKWAY.

that lies on the roof of part of the building at about the same level as the great court of the palace. Now let us turn from a noble site and great undertakings in the neighbourhood of Rome, to a level site and a humbler effort in one of our midland counties. Thorpe Hall, of which this is a survey, was

BUILT AND LAID OUT BY WEBB.

The house is surrounded with a wall enclosing an oblong space, 120 by 200 paces. He put a gateway in each of the four sides opposite the entrances to the house, and relieved the long stretches of wall with a couple of niches at intervals. Next he divided the space unoccupied by the buildings and offices into six parts. One is given to the forecourt, four to pleasure gardens, and one to the kitchen garden. The forecourt is bounded on either side by a wall balustraded on top, and has elaborate piers at the entrance. On the right side, as you enter, a narrow alley is screened off as a way to the offices. The large garden to the east is again subdivided by yew hedges into three parts. The centre being given to parterre with



PLAN OF THIRD PREMIATED DESIGN BY MESSRS. LANCHESTER, STEWART, AND RICKARDS.

a terrace on the right, and a piece to the left in which the design is no longer to be traced. The other spaces are a green court south of the house, a bowling-green, and a rose garden with fountains among the beds. There is one long vista taken through from east to west, starting with the summer-house by the terrace steps, and ending in the entrance gate to the rose garden. On the whole, it is a very compact lay-out, under the simplest conditions, and is interesting as an instance of contemporary design in house and garden. Some of the principles are common to both large and small scales, and run through all garden designs. First of all, enclosure decided and uncompromising. Not of sunk fences or iron palings, but of good honest masonry, high enough to cast broad shadows early and late, and keep the wind from the flowers and fruit-trees. Then subdivision, either by subsidiary walls, or hedges of yew or box almost as dense as the masonry itself. Then the proportioning of the surface of the ground with much the same treatment that a designer deals out to the façade of a building. With regard to a

HISTORY OF GARDEN DESIGN

in England, which has already been treated of elsewhere, and should be pretty well known by now, I only propose to give a slight historical sketch. A house of the period of Elizabeth was approached through an avenue and one or more courts in quiet tones of green and grey. Out of this rose a stately mass of buildings—two wings and a centrepiece—with broad retreating shadows between, sparkling with myriads of small panes set among softly moulded mullions. Through the walls on either hand, festooned with a wealth of climbing roses, there would be splashes of sunlight and colour from garden courts beyond, while at the back the brewhouse, offices, and so forth would be screened off from garden courts and orchards by walls of ample height. If there is one thing that was more characteristic than another of the pleasure-grounds of the past it was this system of enclosure and subdivision, and, to my mind, when that was abandoned the main charm of the old English garden vanished. It was foreign to the idea of a garden to allow forest trees within the walls. The grove had its place, and that was outside the garden enclosure, where a lofty cliff of green would be more than welcome as a background to fruit and flowers. And it was probably from a wish to obtain a background of even tone that hedges first came to be trimmed. This trimming, or pleaching, as it was called, which seems reasonable enough on these grounds, was eventually carried to absurd lengths. They had felt the need of single yews to mark the salient points in complicated patterns of flower beds, and these they cut into a variety of forms: first into cubes and obelisks, and then, by degrees, into every shape that fancy might suggest, until at last the repose of the garden was as much hampered by verdant sculpture as Westminster Abbey is with its monuments. And since, of course, to keep the yews in shape requires considerable labour, it is hardly surprising that there should be few of the kind remaining. As I have said, old gardens were divided into several departments, and each of these bore a character

DISTINCTLY ITS OWN.

There was the parterre, or flower garden, with its fountains, and flower-beds in geometrical designs of box. The bowling-green with its garden house and shaded seats. The fruit orchards, wilderness, and so forth. There is always a charm, too, in length of vista that could not have failed to appeal to garden designers. And to give point to the long perspectives that were planned to pass through house and grounds alike, they were adorned at intervals with fountains, statues, or other objects of interest. Each of these would form the centre of a network of cross vistas, so that sunlight or shadow, front view or profile, should offer the scene afresh as often as it was approached from a new direction. When large sheets of water came to be included in the dressed grounds they too were treated in the same formal manner. The most ambitious efforts in this direction were probably of Dutch origin, and due to the same energy and skill that made the canals and huge drains of the Fen country. Here are two instances from Drest, in Bedfordshire, a T-shaped piece of water some 400 paces long, with broad turf verges next to the groves, and the fish pond in a secluded spot in the wood among yew hedges that are now some 20 ft. in height. The development of garden design may be said to have been the elaboration of these few principles, for the object of the old-time designer was to make a stage on which to play the drama of everyday life; but, unlike the stage, the scenery was real, and the acting an unaffected pleasure in existence and in the sights and sounds and scents of nature. Architecture lost a little of her sobriety in the summer-house, and Sculpture a trifle of her classic finish in the garden.

THE STATUARY USED

in the ornamentation of English gardens was mainly composed of lead, and, if we are to believe the date on a figure of Nelson at Fingask, in Scotland, the old moulds were still in use as late as the year 1820. Perhaps the period of greatest activity may be placed in the reign of William and Mary, for to that time belongs the English classic on the subject, a fine folio of views drawn by Knyffe and engraved by a fellow-countryman of the name of Kyp. Then we have the diary of Celia Fiennes, a lady who spent some years riding about England and taking a lively interest in the improvements that her many friends and relatives were making to their country places. And to this time, too, belong the great plans of Wren's devising for the beautification of Hampton Court. But with the progress of the eighteenth century interest seems to have flagged. People,



THE EDINBURGH COMPETITION. THIRD PREMIATED DESIGN BY MESSRS. LANCHESTER, STEWART, AND RICKARDS.

perhaps, began to tire of spending the sums that their over-grown schemes must have needed to keep up. Pope struck a note of ridicule, and the stupidity of a decadent age was ripe to root them out of fashion. Then came the opportunity of the landscape gardener. Kent and "Capatility" Brown stepped on to the scene, and though they mowed down avenues, and destroyed every vestige of dignity under the protest of "helping nature," they seem to have

FORGOTTEN HOW TO MAKE A GARDEN.

It is mainly due to people of this persuasion that so few of the fine old places are left intact. But there is a more potent influence at work in many parts of England at the present day. The smoke of factories, mines, and foundries is killing the timber, robbing the colour from the stonework, and driving out the occupants from many an old-world paradise. And the only hope is that force of association will lead them to build and lay out their new homes with some of the dignity that still clings about the old. In connexion with the greater lay-out I spoke of the influence of Versailles, and probably the extension of design beyond the limits of the garden proper, was a good deal due to rumours of what the French King was doing near Paris. Moreover, Le Notre is supposed to have come over to England, and to have done some work in and about London—if not in the provinces. It must be admitted, of course, that he was a great master of his craft; but, to my mind, either his own ambition, or that of his royal patron, ran away with him at Versailles. The spaces are immense. So vast, indeed, are they that one cannot help feeling the place is out of all scale with humanity. Moreover, there is nothing in the conception of the palace itself to warrant this treatment in the grounds. The extent of the façade is great, no doubt, but there is nothing Titanic in its structure, nor is there any great elevation from which it might be possible to grasp the huge scheme of terraces, bosquets, and fountains that surround it. I think there is much more feeling for proportion in the lay-out of the Trianon, and though it only forms a part of the

GREAT SCHEME AT VERSAILLES,

at the same time it is sufficiently complete in itself to be looked upon as a separate conception. The parterre under the windows centres with the house and forecourt, and it is not till we descend to the parterres enclosed in Berceaux on the second level that the influence of the great scheme in connexion with the king's palace begins to make itself felt, and a fountain with two pavilions and alleys beyond are made to centre in some measure with an arm of the great canal. But whatever influence Versailles may have had on contemporary work in England was probably through the medium of Hampton Court, and to follow the changes through which that palace has passed is to read the history of garden design in England. Then, too, there was the Dutch influence that came in with the Hanoverians, but exactly in what direction that differed from the French I am not in a position to tell you, for I have never travelled in Holland except as an etcher, and, accordingly, have had no opportunities of studying existing remains. Ideas direct from Italy do not seem to have had much influence in England after the time of Elizabeth. Their work was always more severely Architectural than ours, and in the meantime we had begun to look to Nature for more of our effects. In outdoor Architecture there has always been a scenic and playful character, though with us a certain restraint runs through the work that is not so observable in the south. The organ-case at the Villa Deste is a good instance of Italian extravagance. It is built of the rudest materials, rough brickwork and some sort of black concrete, but coated over with boldly-modelled stucco, and finished with gesso-duro and colour, some of the panels being a very fair imitation of bronze relief. There is something of a stage-like effect, too, in the way this building is perched on a terrace and reflected in the still waters of the pool beneath. Another quaint conceit at the same villa is the long stone trough that borders the upper side of a terrace and receives ninety jets from as many fountains, each with a subject-panel from Ovid's Metamorphoses. At the Villa Lante, not far from Viterbo, Vignola has been quite humorous. In the foreground of the view is a stone table for *al fresco* feasts, down the centre of which runs a stream of water as a cool accompaniment to the meal. Behind the table rises a combination of fountain and staircase, with a colossal deity on either side. And hanging his claws over the balustrade above is a giant stone crayfish that the Architect has inserted in punning allusion to his patron's name, and drawn out is seventeen long vertebræ to form a channel for the water. But these are palaces and playgrounds for the courts of kings, and we are mostly concerned now-a-days with people of humbler station. I will try to describe one or two places of my own devising that are either finished or in progress at the present time, commencing with one in Dorsetshire that has been finished and growing into shape some three years or more. The house was of various dates, mainly from Edward VI. to Elizabeth, but with other additions down to the present century. The wing to the left, and that containing the dining-hall, it was decided to leave untouched, but the comparatively modern work in the south and right wings is rebuilt on the same lines as the older portions. The site of the present gardens was a grass field, falling somewhat from left to right. There were a few trees here and there, and a larch plantation across the windows of the south front. The high road bounded the ground on the left, and a back drive skirted the near side of the field, and continued behind the grove to the back of the house. When the ground was cleared of trees and the roots grubbed up, the soil from the south garden and pool was excavated and removed to form the terraces round the sunk garden. Lines were laid down to make vistas through the centres of the courts, and sundial, fountain, or wrought-iron grille placed where most they seemed to be needed. There are three main lines on which the work is planned. One from the south gate catches the reflection of the house in the long pool, passes through the doorway in the south front and out into the court beyond; thence down the centre of the tennis-lawn, and across a pool at the end to a sculptured figure in a yew hedge by the river. Another line, centering with a window in the left wing, passes down the rose garden and through the circular coronet to a niche fountain between the two arches at the far end. The third is taken from a summer-house in the grove to the right, across the south garden, through the coronet and up a flight of steps with a wrought-iron gate, to the sunk garden. Here it catches the fountain and continues up another flight of steps to end in a stone seat that projects from the back of the terrace. The water for the fountains is forced by a ram in the river to a couple of tanks in the roofs of the pavilions, which gives it a fall of about 20 ft. to the long pool in the south garden. All the stonework, with the exception of a little Doulting, came from the Ham Hill quarries. It is a warm, rust-coloured stone, taking a grey lichen, and I have tried to embody some of that variety in the walling that makes such a marked contrast between the old work and that done at the present day. This is rather a

DISCONNECTED SCHEME,

and has the prime fault that neither of its main axes lead up to the chief block of the house itself. However, this must often be the case when the house and contiguous buildings have already been erected before the grounds are designed. A simpler scheme of suggestions that was made for a place in Norfolk a few months since, but is, I regret to say, going to remain on paper, was to add some gardens to a house built some 20 years ago, and designed without envisaging any Architectural treatment of the grounds about it. The site was pitched on a high plateau, falling away rapidly in a wooded hill-side at the back of the house, and from the edge of the plateau a magnificent view of the Wash, and the Boston Stump in the distance, was visible through the trees. For a smaller lay-out, I suggested a forecourt and three garden courts plotted as shown on the plan. And to make the most of the distant view, an elliptical lawn was to be hollowed out of the hill in a line with the central alley. This was to be balustraded and buttressed with seven life-size stags on the parapet, and belvedere pavilions at either end. For the greater lay-out there was to be a fan of five avenues, radiating from the centre window of the saloon, and springing from an arc with a radius of 260 yards from the point of intersection. The local stone is of a deep rust colour, and never looks garishly new, which made one all the more keen to handle it. The principles I have been enunciating were not, of course, confined to the surroundings of

COUNTRY HOUSES ONLY.

They were, and are still, equally applicable to town houses where there is any ground to treat, and also to the streets and squares of towns. There are not many towns and villages in England that have been laid out with much attention to this, though I daresay, with thought, one could enumerate a few. Pitcairn Green, in Scotland, for instance, has a pretty plan and a festooned arrangement of trees, that gives it quite a gala-like appearance. It is easier to call to mind instances in France, and the two that suggest themselves most readily are Quimper and Quimperle in Brittany. The latter, especially, with its trim canopy of green, surrounding the square like an awning, under which one can wander round in the shade from the Hotel de Ville to the river. I have been applying these principles to a building town in Ireland. The principal streets and squares are laid out as you see, and by the time the place is built up, the avenues and groves should be affording some shelter from sun and wind. The court-house forms the focus of the whole arrangement. Beneath it is the butter market, and through the trees across the road the houses and shops that form the market square. There are two pools and groves of trees at one side of the square, with tall columns for electric light at intervals in the balustrade. Down the street to the west we catch a glimpse of the Calvary in the churchyard wall, and up to the east a fountain. The main buildings and shops round the market square are designed in the rough, but are only to be built as they are required. Now it is a fault with most of us to somewhat overrate the beauty of things we have lately seen. Our enthusiasm outruns our judgment, and could we but know it, the undigested mass has not had time to settle, so I may as well confess that I have not long returned from a miscellaneous tour in Scotland, which may account for a certain preponderance of Scotch views; a tour comprising most things, from surveying the pace of a racehorse to pacing the survey of a scheme of laying-out. Castle Kennedy, near Stranraer, was the first point I made for. It is large for England (about half-a-mile through), and lies in a beautiful situation between two lochs. But, do what I could, I could find no exceptional merit in it, and on the whole went away disappointed. The specimen tree is rampant, even to the extent of some of the ilex avenues having been replanted with puzzle monkeys. And the new castle of Loch Inch has been built across the upper end since this plan was made. Thence to Dalziel, in Lanarkshire, which is a fine old castle, with hanging gardens between it and a burn that runs close under the walls; and while there I paid a visit to Wishaw House, only to find the old garden forlorn and derelict, a playground for the rabbit and the mole. From Dalziel I went to Edinburgh, and so to Newhailes, a fairly complete lay-out, finished and adorned probably by the brothers Adam. You have already seen the leaden sphinx at the corner of the beech walk. On the other side of Musselburgh lies Pinkie House, with its beautiful gallery ceiling and stately walled courts. Perth was the next point, and a good centre for most of what is interesting in Scottish Architecture.

DRUMMOND CASTLE, NEAR CRIEFF,

claimed priority from its reputation, but excepting the terraces below the castle walls and the green court, I thought it disappointing. There are grand masses of yew, and the floriculture is wonderful, but the great garden below lacks enclosure, is marred by the specimen shrub, and, moreover, it is not levelled. But to my mind the harmony is most destroyed by the high note of colour struck now and again in the white marble figures and busts, of which, to say the least, there is no scarcity. The garden at Murthly is small, but full of surprises. It was the subject of Sir John Millais' picture of an old garden, and lies under the shadow of a huge "modern Elizabethan" house, a house that never was tenanted, but can boast of a fine approach of lime avenues, and a bowling green, overlooked by story above story of blank mullioned windows. Not many miles away from this lay Stobhall, on a steep green slope, overlooking the brawling waters of the Tay. Scattered up the hillside and along the crest by the wood was a haphazard cluster of buildings,

and spires of yew topping a terrace wall betokened the presence of an old garden. Here is the sun-dial among a few simple beds cut in the green sward. The house, the Chapel, and the garden were all in miniature, and the whole charm of the place lay in its proportion, position, and colour, a symphony in dark greens with a setting of pale autumnal flowers. Melville, in Fife, came next, and was interesting for its scheme of planting, and also for a forecourt designed something like that at New Park, in Surrey. The house and wings enclose one end of this forecourt, and the end towards the avenue has a gate in the centre, with flying figures on either side. The gilded vanes of two pavilions fall on a line with the counter avenues. The gardens were, no doubt, at one time on the far side of the house, but the site of them has long ago been thrown into a park, the main entrance made on that side, and the original forecourt converted into a flower garden. In the woods at Melville, which, by the way, are all part of the design, there is a circle of beeches, 100 paces in diameter.

THE EFFECT IS MAGNIFICENT.

A wall of sombre green all round 100 feet in height, melting from shade into sunlight, and row behind row of sturdy trunks, receding into the gloom of the woods beneath. Eight paths in a level lawn radiate from the centre, where, no doubt, there once stood a temple dedicated to some sylvan deity. A fortnight later I came upon a somewhat similar arrangement in the woods at Tynningham, but on a much larger scale. This time with a turf terrace all round. But in the interval rain and wind had stripped the beeches of their leaves, and robbed it of half the charm it might otherwise have possessed. It is with flat sites in low-lying countries that we generally find the boldest schemes in artificial water and planting. The land is probably divided into squares or rectangles by the necessary dykes, and to plant the banks of these dykes with rows of trees seems only natural, both to protect the cattle out at grass from the wind, and also to lend shade to the wide droves between the pasture. A long trudge over sand dunes on the coast of Elgin brought me to Gordonstown, a place of this character. The house and grounds lie enbosomed in groves and enclosed pastures, with a long piece of formal water to the south, the soil from which has gone to form broad embankments on either side. To the north there is an ample forecourt, and winter gardens are set in the groves on either side the central approach. As far as these latter are concerned, the plan is mainly conjectural, as they have practically disappeared, and I had no time on the spot to search for remains. However, the old bee-hive shelters still exist in the wood, facing the two central alleys of the gardens. They are of stone, with pent roofs, and a solid wall at the back to keep out the north wind. All the stabling, grooms' lodgings, granaries, and other farm buildings are collected round a circular court, which is an arrangement I had not seen elsewhere. The effect of this from the interior is delightful, the long sweep of roof being broken here and there by rows of dormers and crow-stepped gables over the party walls. There were one or two places further north still that I should have liked to visit; but there is a limit to human endurance, and apparently none to that of the Scotch weather fiend when he is ill-humoured.

AT Shrewsbury, the Shropshire Horticultural Society has undertaken to defray the entire cost of erecting a statue to Charles Darwin, at an expenditure of from £1,000 to £1,200.

THE Doddridge Congregational Church, at Northampton, has been restored in commemoration of its centenary, and a new Church has been erected in the St. James's End. The total cost has been £3,047.

A NEW organ has been erected in the Church of Our Father, Rotherham. The total cost is £430, and has been subscribed. Mr. A. Keates, of Sheffield, has been the builder.

THERE has just been placed in Christ Church, Morningside, a stained-glass window to the memory of the late Dr. Bremner, Streatham House, Canaan Lane. The window, which is a two-light one, has been executed at the studios of Messrs. A. Ballantine and Gardiner, George Street, Edinburgh.

THE NECESSITY OF REGISTRATION.

BY WILLIAM WATSON,

President of the Leeds and Yorkshire Architectural Society.

I DO not intend to speak on the Art side of the profession in which we are all engaged, but rather confine my very few remarks to the practical or business side. First, I would call the serious attention of every person practising as Architects to the very great disadvantage we are placed in not being a recognized registered body; therefore, being unprotected, are subject to all the unpleasantness and opprobrium of being considered a profession of such small importance, that whether a man has been highly or properly trained and proved himself competent to practise, or whether he emerged from a drawing school, a builder's workshop, stonemason's yard, or similar position, only very partially trained, he suddenly becomes, with the additional aid of a brass plate, a practising Architect. Now I take it that this state of things could very soon be changed, if only the R.I.B.A., the Architectural Association, and the Society of Architects, could come together and formulate a good registration Bill, and lay the same before Parliament; a Bill which should be broad on its basis, moderately far reaching, so as to receive the support of the Associations named as well as their affiliated Societies. We, as a body, will have to accept such a Bill, as we may fairly compare with those which enabled the Legal and Medical professions to become registered and protected bodies. Most men in these professions had to be included because of their then being in practice; but very soon time brings matters to the altered and present position, and now no one can practise either Law or Medicine without having passed through the various examinations. This I believe to be the only course for adoption if ever we are to become a

REGISTERED BODY

and practise under protection; the first ingathering must necesarily be broad, after that, admission or leave to practise would be restricted only to men properly qualified by the examination, which would be formulated and conducted by the governing body elected for the purpose. The Bill introduced to Parliament by the Society of Architects, in the session of 1892, I think fairly meets the case, and the framers of it evidently felt the same difficulties of drawing a very hard-and-fast line at the commencement. As the Act operated it would harden. None but qualified men could be admitted, and time, as we all know, would in a few years so place the profession in such a position, that none would be practising but those who had shown their ability to do so, after due qualification and admission. If this course was adopted we should have more interest shown by the young men who enter our offices as pupils in their work and studies; the knowledge that they could not practise until lawfully qualified, would spur them onward in their work and study: some, no doubt (as in the case of the other professions), would remain without, and take what would be considered outside positions, useful men some of them, no doubt, in their way, but they would remain workers and assistants, unable to lawfully practise their profession in consequence of non-qualification. Again, if such a Bill becomes law, I think we should find a different class of men, in due time, occupying the important positions of Surveyors to County Councils, Corporations, District Councils, or other public authorities. We have all had these men to meet, and know the difficulties and annoyances we have had to encounter in the passing of plans before the various authorities and in obtaining sanction and approval. Some of those occupying these positions we respect and admire for their integrity and intelligent knowledge of their work and duties, having previously received proper and careful training, but others we may resemble to square pegs in round holes, quite unsuitable and incompetent to act in a judicial capacity, or properly fill the professional positions in which they have been placed. Before leaving this subject, I would strongly urge the members of this Society, as well as all professional men not connected with this or similar Societies, to urge the three important Architectural bodies I have before named, to come together, draft a Bill to meet the case, which I am sure would, if again brought forward, succeed in Parliament, our present weakness now being, as an M.P. a short time ago said to me, "You can't at present agree amongst yourselves, but as soon as you can there will be no difficulties whatever in the way." In concluding this

IMPORTANT SUBJECT

of registration, I would call your attention to the words of Mr. Ellis Marsland, at Cardiff, in March last, where he said, "At present there are only three professions, the Church, Law, and Medicine, to all of which it is considered an honour to belong; and why? because to be a member of either is synonymous with having undergone a prolonged and complete study and preparation, which has fitted them for the position to which they have attained. Why is Architecture excluded from amongst these? To possess the knowledge to build and the skill to plan and design a building, and to deal with the innumerable questions, Scientific, Artistic, Legal, and Sanitary, which continually present themselves in ordinary practice, requires a training as arduous and as prolonged as that of any to which I have alluded. If the men who look after our souls, and those who look after our bodies, and those who conduct us through the mazes and intricacies of the law, are to be honoured with the dignity of being called professional gentlemen, surely the men who provide the necessary skill to erect our Churches and public buildings, and to make our homes healthy and Artistic, are entitled to the same dignity." I should like to say a few words on the subject of the disastrous strikes and lock-outs, which periodically take place in the building trades, and which paralyze our work for sometimes weeks or months. In Leeds during this year there has been a prolonged and weary dispute; in some other towns I know of, the like, but perhaps not so acute and of shorter duration. Could not a Society like ours suggest, when these differences arise, that arbitration should take place, and could not we recommend the forming of a Board of Conciliation, representative of masters, workmen, and some eminent and experienced member of our Society, or of other kindred societies, to undertake the settling of disputes, after hearing both sides and careful deliberation, without having resource to the prolonged stoppage of work during the best part of the building season, causing a great monetary loss on all concerned? These periodical strikes or lock-outs injure us all, workmen as well as masters, practitioners as well as clients, causing, at times, such ill-will and bad feeling to remain that years elapse before the mischief is undone and the misery incurred forgotten. I will be brief on my next subject, that of

"QUANTITIES."

It is well known that without bills of quantities being furnished to contractors of every trade it is almost impossible to obtain tenders, either from public or from private invitation, such being now the recognised custom. I should like to see the introduction of a system whereby payment should be made for this work direct to the Architect or Surveyor, by the client, instead of, as in very numerous cases now-a-days, through the contractor. I am pleased to find public bodies are beginning to understand this part of the work of Architects. In many cases bills of quantities are furnished to contractors free of charge (on the understanding bonâ fide tenders are returned). This custom should now, I submit, be made a *sine quâ non*. The schedule of quantities should be supplied by the Architect, whether taken out by himself or a Quantity Surveyor, the client in all cases paying for the work, in addition to the other recognized Architect's charges. If this system was adopted it would entirely remove from the mind of a contractor that he is paying the Architect a fee or a percentage (as it is frequently called), forgetting the while that he has already added the amount to his tender for that part of the Architect's work, which also comes out of the pocket of the client. To the younger members of the profession I would say make yourself conversant with quantity surveying. You will find that as your building operations proceed you will work off your details within the limits of your bill, avoiding extras; you will also have personal knowledge of all unforeseen and necessary additional work, as well as omitted work, as they arise; you will be better enabled to deal with those items in measuring and balancing and preparing the final accounts for the contractors. I strongly advise the avoidance of numerous P.C.'s in a specification and bill of

quantities. There are some items which are required in a building when it is absolutely necessary at the time the specifications are drawn to be put down as P.C.'s, but there are scores of others where P.C.'s can be avoided, simply by specifying certain articles made by well-known manufacturers, which are known to be excellent in quality and fair in price, always inserting subject to the protecting words, "or other equal." This shows to a manufacturer he cannot take any undue advantage, it also allows the contractor as well as the Architect latitude and opportunity for careful consideration of quality in materials or workmanship of any goods to be supplied. By adopting this course a better article than that named in the original specification can often be obtained. The next point is the question of letting contracts in so many separate trades. In Yorkshire it is almost the universal custom to divide the work required in any ordinary building into five or six sections (without specialist's work), except in very large contracts, and in these, generally, the system of sub-contracting prevails; this latter system often is a great hindrance to an Architect. He virtually has one contractor to deal with, who signs for the whole, and who is supposed to be responsible: he may be what is termed a builder, he may be a carpenter and joiner, or he may be a plumber; in any case the builder seldom troubles himself about the joiner, or the joiner the plumber, and so on; consequently before the building is completed the Architect is left to deal with the subs. (as they are called) as best he can. I say, avoid such numerous divisions and sub-contracting, and introduce, if possible, a system of contracts divided into three sections, viz., first, the building trade, secondly, the wood or timber trades, and thirdly, the metal trades. If Architects generally would encourage this system I venture to think they would soon find contractors for excavating, brick, stone, slate and plaster work in one, carpenter's and joiner's work in another, and plumbing, glazing, ironwork and painting in a third, reducing the number of principal contractors. We generally now have from six to three. Exceptional cases arise where we bring in the specialists for important iron work, fireproof work, wood blocks, tile floors, or numerous other specialities. I think the members of the profession may be congratulated at the present time in being fairly well engaged; in the large cities, towns, and populous places, important buildings of a public character or otherwise are in progress, the larger share of the work being in the hands of local men. Important works are being carried out by corporations and public authorities, under the direction of their professional advisers, in the opening out and improvement of leading thoroughfares, clearing out the insanitary areas of our cities and towns (which have for years been reproaches to civilized communities). In all directions a better class of dwellings are being erected for the working classes, districts drained and supplied with good and wholesome water, roads, streets, and footpaths properly made and finished, public parks laid out, recreation grounds provided in suitable places, together benefitting the general public and all classes of society. These works are more or less initiated by the advice of, and under the guidance of, professional Architects and Surveyors, men who, I believe, have a general interest at heart in improving and beautifying our cities, towns and villages.

The Presidential Address to the Members on Nov. 16th.

IN Pietermaritzburg, Natal, South Africa, has just been unveiled the statue of the late Sir Theophilus Shepstone, who was born at Westbury-on-Trym, Bristol, on the 8th January, 1817, but who resided nearly the whole of his life in South Africa. His father, who was an Architect, left England with his wife and family, and went out to the Cape in 1820.

IT is well that the attention of householders should be directed to the recent important decision in the Court of Appeal. From this it appears that though a Vestry can compel an owner to put his drains in a proper condition, it has no power to force him to connect his drains with any new system which it chooses to create. The point is important, as the construction of a new drain involves a very large outlay, and it is as well that owners of house property should be aware that the Vestry has no power to lay this burden upon them.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
November 25th, 1896.

"*I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs.*"—JOHN RUSKIN.

WE announce with regret the death of Mr. Perdue, of John Street, Adelphi. His father held a post of importance in Somerset House; his third son, William, who was born at Ringwood, Hants, was articled to Mr. S. Beazley, the well-known Architect of several theatres, as well as a prolific writer for the stage. While a pupil he was admitted as student at the Institute, and, later, at the Royal Academy also. The office of Mr. J. Johnson, of the Adelphi, so well known as a most accomplished draughtsman and designer, next gave Perdue a real impetus towards drawing, and also a desire to study on the continent. Between the years 1854 and 1858 he spent four years abroad, in Italy mostly, bringing home portfolios of sketches and drawings as proofs of assiduity and taste; this proficiency with the pencil he displayed through life. Numerous contributions to the pages of the Illustrated News and other publications are evidences of combined accuracy and taste. A labour of love to him was the scrupulous copying by him of the almost unique MS., Queen Mary's Psalter, better known as No. 2, B. vii., in the British Museum. Here unwearied patience and delicate skill in the delineation of each figure or detail is manifest, and, as a reproduction of mediæval drawing, Perdue's publication is probably unequalled, if we may accept the late William Burges as a competent judge. He carried on a practice of a miscellaneous character for several years, and was much esteemed for his amiable, unselfish character. His death took place on the 14th inst., at the age of seventy-one.

No. 1, Duck Row, at the foot of Canongate, Jedburgh, generally known as the Piper's House, is at present undergoing alterations. This house, one of the oldest in the burgh, is supposed to have been built by one Adam Ainslie, at the beginning of the seventeenth century, as his initials, A. A., and those of his wife I. A.—Janet Ainslie—with the date 1604, are to be seen on a lintel over one of the windows. The house is two stories in height, with attics. The walls have been built with clay instead of lime; at the tops of the gables are corbie steps, characteristic of Scottish Architecture in former times, and at the top of the wall next Canongate is seen the effigy of a piper with his bagpipes, carved in stone. The window over which is the carved lintel above alluded to, was originally a door to the second storey, which was approached by an outside stone stair, taken down shortly before 1730. The upper half of one of the gables was found to be 4½ feet thick, while the lower half was only 3½ feet.

AT present a great deal of very unnecessary agitation is being expended over the question whether or not Mr. Poynter will continue to hold the Directorship of the National Gallery now that he has been appointed President of the Royal Academy. Why he should not fill both posts with credit to himself and advantage to two such kindred institutions, it would be hard to say. Certainly there is among the men now available no one so suited as he is for this sort of officialism, and his withdrawal from the National Gallery would be a distinct disaster. As there is no practical objection to both offices being held by the same individual, opposition on the ground of mere sentiment is both foolish and dangerous. So few of the Government appointments which have to do with the control of Art matters are entrusted to men who are really fitted for them that we cannot afford to lose a Director who has, even in the short time that Mr. Poynter has had to prove his capacity, shown himself adapted for the work. Much of what has been said against Mr. Poynter remaining Director of the National Gallery is too evidently inspired by would-be successors to him to be quite acceptable. The old fallacy is being advanced that what is needed in Trafalgar Square is not an Artist, but an Art theorist, whose Art knowledge is literary rather than practical. The National Gallery is not a museum, a place where archæological curiosities should be gathered together, but an educational centre, where the methods of as many schools as possible may be examined and compared. A working Artist would be far more likely to be able to appreciate exactly what would be most useful to the members of his own profession, and to select judiciously from the works of Art offered to him, than an Art historian chiefly interested in questions of chronology and curious facts in the development of this or that Artistic fashion.

AT the invitation of the Master and Wardens of the Carpenter's Company, an inspection was recently made of the Trades Technical Schools carried on by them and other city guilds in Great Titchfield Street. An informal meeting took place before the inspection of the buildings, at which Professor Aitchison presided. Professor Banister Fletcher made a short statement, in which he alluded to the progress made since the schools were founded in 1893. The number of students had now reached 205, and the average weekly attendance was 405. A new feature, which had been suggested by the London County Council, and acted upon, was that students under their control received a free nomination to the Carpenters' Schools. The buildings have been extended and a reading-room with a small library instituted for the scholars. Professor Aitchison stated that he hoped the students would learn the Art of making things not only tasteful in design, but solid in workmanship.

WATTEAU—the Theocritus of painting—has now his statue or bust in the Garden of the Luxembourg. According to a contemporary, it is characteristic of the French that, in wit and literature, they respect the old works. In England it is almost out of fashion to quote old writers, and little is heard nowadays of such great painters as Sir Joshua Reynolds, not to speak of Barry (the "Wild Irishman from Cork," as he was called), or Blake. There are connoisseurs who honour these names, no doubt, but the bulk of the people only know the Alma Tademas and the Herkomers. In France, every poor as well as rich man honours Watteau, just as, in literature, Molière, Montaigne, Beaumarchais, and all the others are respected and admired. Watteau's pastoral scenes are still visible in many a shop window, and command a steady sale. His is another case of a stone being given for bread. In his youth the plumber's son from Valenciennes had a desperate struggle when he came to Paris, burning to imitate Rubens and Vandyke, whose pictures he had studied in the Churches and convents of Flanders. He often wandered, footsore and famished, through that garden where his memorial was unveiled on Sunday last. Even when he was supposed to be prosperous he was in reality poor, and died on returning from a journey to London, at the age of thirty-seven. His Art work is less licentious than that of his rivals, Bouchard and Fragonard.

IT was the wish of the late Mr. William Morris that his library should be sold, if possible, in its entirety. It is to be hoped that this will be the case, for as a collection it is unique—not from the point of view of rarity, but from that of Artistic beauty. Among the illuminated MSS. more than a hundred are of the twelfth century. A precious example of English work is the Bestiary, containing 106 miniatures, supposed to be the one presented by a Canon of Lincoln, in 1187, to the Church of St. Mary and St. Cuthbert, at Radford. In the mediæval collection of the library there are not only devotional works, missals, psalters, and "Books of Hours," but manuscript copies of ancient classes, among them Virgil, Cicero, and Columbella. The library is also rich in thirteenth-century Bibles. Scandinavian books, including the Icelandic Sagas, are also well represented.

The examples of early woodcuts are very numerous, and there are some of the earliest products of the press of Augsburg and Ulm. The Herbals are very curious and valuable, the collection including the supposed earliest one, and also the finest, that of Fuchsias, printed at Basle in 1542.

AT the opening meeting of the session of the Architectural section of Glasgow Philosophical Society, Mr. P. Macgregor Chalmers delivered his presidental address. Choosing as his subject "Art in the City," Mr. Macgregor Chalmers urged the propriety of preserving many of the old remains connected with the city, and expressed the wish that interest in such buildings as the Cathedral was more general. Especially did he wish that the interest in the Cathedral should be sufficiently active as to lead to the proper adornment of the fabric and to the furnishing of the nave as a Church. In the memorials and monuments erected throughout the city, he said he found little that indicated the presence in the minds of those who erected them of any tender thought towards those sought to be honoured; nor was there any attempt to give expression to feelings which might inspire future generations. Although there were two beautiful fountains—the Stewart Memorial and the Jubilee—these were in the parks. There were no fountains in the city, where they were most required—none, at least, worthy of the name, or to be compared with the fountains in Paris or Rome. Regarding the statues in George Square, he thought the present arrangement was most defective, and he suggested that if they were re-arranged, with all the faces turned to the west, it would both improve the Square and add to the effectiveness of the municipal buildings. He drew attention to the fact that of late there had been illustrated in several buildings the happy union of Architect and Sculptor, and he expressed the hope that Architects and Artist painters would yet be brought together, to the great advantage of Art. The wall painting in the municipal banqueting hall would ere long give the citizens an opportunity of seeing what such a union meant. In the interest of all craftsmen, he appealed for the immediate founding of an industrial school of Art, under the direction of an Artist, and if possible freed from all extraneous authority.

MR. John Wolfe Barry, the new President of the Institution of Civil Engineers, enjoys his most popular title to fame as the designer of the Tower Bridge; but comparatively few are aware how many of the structures familiar to Londoners are due, either wholly or in part, to his genius. Under Sir John Hawkshaw he was resident engineer on the bridges over the Thames at Charing Cross and Cannon Street. The Earl's Court Station, the St. Paul's Station, the Inner Circle Railway between the Mansion House and Aldgate, the extension to Whitechapel, that to Ealing, and the railway bridge across the Thames at Blackfriars, are all the work of Mr. Barry. But their importance is dwarfed in comparison with the great dock and railway works at Barry in Glamorganshire, carried out under his direction. One of the docks has an area of 80 acres of water, and is said to be the largest in the world. Mr. Wolfe Barry was born in 1836, and received his earlier education at Trinity College, Glenalmond, Perthshire. His elder brother, the Rev. Arthur Barry, was then sub-warden of the college. Later he became more widely known as Bishop of Sydney and Primate of Australia.

A LONG article appears in the Belfast News Letter upon the advantages to be derived by the construction of a tunnel between Ireland and Scotland, in which it is stated that Messrs. Hawkshaw & Hayter, of Westminster, on the one side of the Channel, and Messrs. Barton on the other, unitedly give their opinion of its practicability and its approximate cost. We may well consider what the extent of the commercial advantages is likely to be, and how far the interests of Ireland would be affected, if it were accomplished. The project is a double-line tunnel of 35 miles, of which 24½ miles would be under the Channel, and the remainder in approaches; it would connect the existing lines at Stranraer with the Northern Counties Railway of Ireland, about 10 miles north of Belfast, and by means of a third rail would run the English gauge with a double line into the city of Belfast. The total length from Stranraer to Belfast is 51 miles.

IN the course of the excavations now proceeding upon the Stray, in front of the Prospect Hotel, a very fine glacier-borne Milstone Gril boulder has been unearthed. It is an excellent specimen, and weighs about a ton and a half, and has been placed in the Boys Valley Garden. It is computed that the ice stream which carried this remarkably fine pebble specimen to the spot where it was found travelled from a northerly direction, and came from the neighbourhood of Sigsworth Crags, near Pateley, which is situate about 1,100 feet above sea-level, or from Brimham Rocks, which have an altitude of 950 feet.

AT the Japanese Gallery another exhibition of the works of Watanabe Seitei, has been arranged by Mr. Larkin, and includes, besides several examples of another noted Japanese artist, Kwasou, who has much of his fellow-countryman's daintiness of fancy and method. Their drawings are for the most part studies of birds, fish, and flowers, painted with exquisite delicacy, and with an intention to be decorative rather than merely realistic. The best traditions of Japanese Art are well maintained in this modern work. In the gallery is also shown a small but especially well selected collection of Chinese and Oriental porcelain and ceramics, among which are some unusually choice specimens.

TEN years ago Sir William Siemens, speaking at a meeting of the Iron and Steel Institute on the progress of electrical science, suggested, to the amusement of his hearers, that, at no distant date, the Falls of Niagara themselves might be harnessed to the car of science, and utilised for the generation on a large scale of electrical power. When the scheme first assumed definite commercial shape, it was received by the lovers of nature with groans and protests at what they termed its audacious profanity. The execution of the plan, they declared, would involve not only the degradation but the disfigurement of one of the most sublime spectacles on the American continent, and they already beheld in imagination the famous waterfall ignominiously caged in gigantic water-wheels, and flanked on either side of the river by clusters of hideous engine-houses and factories, belching forth volumes of smoke dense and foul enough to choke a hardened Black Country furnaceman. What manufacturing enterprise may have in store for Niagara in the future we cannot pretend to say, but as yet neither chimneys or factories are anywhere visible in the neighbourhood, and the falls themselves are free from any evidence of mechanical restraint. All that has been done has been to divert a small stream of water from the rapids above the falls into a series of turbines 175 ft. below, each driving a powerful vertical steel shaft at a speed of 250 revolutions per minute. At the top of each shaft revolves a dynamo developing 5,000 horse-power of electrical energy in an alternating two-phase current of 2,200 volts, and the product is transmitted to a number of factories, houses, and street lamps in the neighbouring Niagara City and various places on the road to Buffalo. Last week the City of Buffalo, twenty-six miles distant from the Falls, was formally connected with the water-driven machinery, and the interesting fact was announced to the world at one minute past midnight by a salvo of twenty-one guns. The power, which now represents in the aggregate 7,000 horses, and will shortly be increased to the equivalent of 10,000, is utilised in Buffalo for a variety of public and private purposes. About 1,000 horse-power is absorbed by the requirements of the Buffalo Street Railway, and the remaining 6,000 apparently will all be too little for the wants of the 375,000 inhabitants, and especially the manufacturing section of the population. Fortunately there is an enormous reserve of power in the Falls themselves, which are estimated at something like 16 million horses; and as the power is supplied at a very low figure—about half a farthing per unit, or £2 per horse for 5,000 or over—it is not unlikely to revolutionise the industry of the North-Eastern States, and cause an immense development of manufacturing enterprise by-and-by in the immediate vicinity of the Falls.

BARON DE BAY, a French archæologist, has been digging up the Kurgans, or old turtleback burying mounds, near Tomsk, in Siberia. Some of these, dating betore the Russian conquest of Siberia, contain beads, earrings, knives with artistically-carved bone hafts, copper kettles, rings, bracelets, and ornaments of silver. The oldest mound was five or six centuries old. The mounds that were built only 300 years ago showed a much poorer stage of civilisation, very few metal objects being found, and the arrow-heads and knife-blades being made of bone.

AT St. Blane's Church, Kingarth, extensive excavations have been carried out during the past year, at the direction of the Marquis of Bute. This ancient ruin, which down to the 17th century had been the Parish Church of Kingarth, was allowed to lie in a very neglected condition. The Abbacy of Kingarth itself—such is this St. Blane's—one of the earliest foundations after the Columban type, has the distinction of mention from the 7th century of the Christian era, the *obits* of several abbots and bishops finding permanent record in the early Irish annals, and the beauty of its surroundings, as well as the antiquity of the edifice, has long made it a favourite resort for summer tourists. The two contiguous graveyards—one for men, and a separate one for women—were also in a very neglected condition. In the upper cemetery men alone were buried down to 1661, when the Presbytery of Duncon interfered to stop this superstitious custom, a relic of monastic times. Although the old Church was deserted for the new Parish Church of Kingarth, in the beginning of last century, interments in this upper cemetery have continued till lately. In 1875 this highly interesting spot was restored to decency and order at the sole expense of Lord Bute, and it was then made plain that in St. Blane's—or, as is should be spelt, St. Blaan's—there is preserved one of the finest of those sacred edifices which were frequented by worshippers according to the Columban and Roman forms of worship. Further restorations have now been made by Lord Bute, and the excavations have now proved that a place of worship and cemetery existed before the nave was built. Many old Celtic remains have also been found. The excavations and repairs, which are very extensive, are being executed under the direction of Mr. Schultz, Architect, London, and his resident assistant, Mr. Pechell.

AT Burlington House the works of Lord Leighton will occupy all the rooms which will be open for the Winter Exhibition. His great canvases will be seen altogether in the large gallery, where year after year, since 1869, one or other of them will have held the centre of the long wall. In the water-colour room will be found those landscapes which he himself valued less highly, but some of which fetched such large prices at his sale, and with the landscapes there will be cabinet pictures and studies for the more important works, while the vestibule will be devoted to his statuary. How Leighton will stand the ordeal of such an exhibition we have yet to see. It is understood that the following year the Winter Exhibition will consist of Millais' works. No one who remembers the Millais collection at the Grosvenor can doubt the success of that exhibition.

DURING the excavations through the bank at the side of the railway at Brightside Station, for the purpose of laying down additional lines, the workmen have unearthed some very interesting examples of the larger forms of vegetation that flourished at the time when our coal seams were formed. The bank side is composed chiefly of sandstone mixed with shale, and embedded therein are numerous specimens of ferns of the carboniferous period. These, buried in the sand and mud that silted up the land where they originally grew, have now been disinterred, after having been hidden probably for many millions of years. A still more striking example of carboniferous vegetation was unearthed last week, when the sandstone which the men were removing fell away from the round trunk of a tree, which had been broken off about three feet from the roots. Under the direction of Mr. Herbert Sherdon, the base of the tree was carefully cleared, and the roots exposed. The one on the left has been abruptly broken off where some deeper excavations had been made, and the root has been split open horizontally, showing a dark carbonized layer where the internal pith was. There are three other principal broad roots extending from the tree, and it may be possible to expose and preserve these for a considerable distance, when the sandstone is further removed. The bark of the tree can well be seen, converted into a thin layer of

coal, adhering to the outer surface in various parts. The tree itself, of course, has lost all its woody character, and has been converted into a mass of clay ironstone. On exposure to the air, after its burial of long ages, the outer surface showed a tendency to break off, and the trunk itself readily split into sections. The form of the tree is very distinct, and is almost upright in position, after allowing for the general dip of the sandstone.

MR. HANBURY, the Financial Secretary to the Treasury, said some very welcome things about the attitude of the Government towards Art and Technical Schools at Preston. His admission of an opinion that such schools ought to be encouraged at the public expense was certainly one to rejoice over, and it was cheering, too, to hear that during the past year he had favoured an increase in the grant to Art Schools from £22,000 to £56,000. But the best news of all was that he had amended the ridiculous system under which it was obligatory on such institutions as the South Kensington Museum to return any unexpended balance of the funds put annually at their disposal. The old method of granting money to museums merely put a premium on extravagance, and careless use of the money available, and did nothing to encourage wise economy. Now that any surplus which may remain in a year of few opportunities may be added to the fund available for purchases when the market is better supplied, there is every reason why the museum officials should limit their buying to those things only which they really want. It is, too, most fortunate that the value of Technical Schools, where the way to do thorough and Artistic work can be taught, is becoming more appreciated in official circles. Hitherto much of the applied Art of this country has suffered because the men upon whom the responsibility of production rests have been allowed no opportunity of learning properly the technicalities of the crafts they follow. As the basis of all sound Art is fitness, it is obvious that neither Artist nor Craftsman can produce anything really excellent except by the assistance of a detailed training in the work they have to do. It is this training that the schools exist to supply, and so long as they adequately fulfil their functions they deserve every encouragement that can be given them.

DR. HANS HILDEBRAND, of Sweden, delivered in the lecture hall of the National Portrait Gallery, Edinburgh, the last of the present course of Rhind Lectures on "The Early Relations between Britain and Scandinavia." With "The latest relations," as his particular subject of lecture, Dr. Hildebrand dealt in the first place with the light which the importation of Anglo-Saxon coins into Scandinavia, and especially into Sweden, shed on the subject. In connection with this branch of the question, he devoted some attention to the numerous and extensive "finds" of Arabian coins, together with personal ornaments in silver of similar origin, which had been discovered in Sweden, and to the numismatic as well as historical value of these discoveries. He also adduced his reasons for holding that many of these silver ornaments were undoubtedly of indigenous workmanship, and revealed a development or evolution of the original type imported from the East. Coming to the subject of Anglo-Saxon coins found in Scandinavia, he pointed out that in regard to periods covered by the reign of certain of the Anglo-Saxon kings the royal collection of ancient coins in Stockholm was vastly richer in the number of different specimens than was the collection in the British Museum of similar coins found in this country. For example, while of Anglo-Saxon coins belonging to the close of the tenth and the beginning of the eleventh century, the Museum in Stockholm in 1881 had 4,389 different specimens, the British Museum had only 408; and while of coins of the reign of Canute the Great the Stockholm Museum had as many as 3,904 different specimens, the British Museum had but 617 specimens. The lecturer likewise pointed out that it might be assumed from the designs on certain Scandinavian coins that they had been minted by Englishmen who had been invited over by the early Scandinavian kings for this purpose. Coming to the subject of Runic memorial stones found in Scandinavia bearing reference to England or Englishmen, Dr. Hildebrand said it had been the custom in foreign countries to regard all Runic inscriptions as belonging to Pagan times; but in reality most of the Scandinavian Runic inscriptions belonged to the first Christian times. The majority of the Swedish Runic stones belonged to the middle of the eleventh century, and that they had been erected by Christians was clear from the inscriptions.

UNTIL recently the highest price ever paid for a single coin was £500, given for the Simon Petition Crown; but this sum has been beaten in a sale at Sotheby's of the "Juxon Medal" for £770. This historic coin, which was included in the Montague collection, is one of the finest works executed by the engraver, Thomas Rawlins, and was presented by King Charles I. to Bishop Juxon on the scaffold, just before that monarch's execution. Although called the "Juxon Medal" from that circumstance, it is a gold pattern five-broad piece, bearing upon it the bust of the King, bareheaded, in a lace collar, with armour, and scarf across the breast. On the reverse are the Royal arms in high relief. It weighs 732 grains, and thus sold for upwards of a pound sterling per grain. Its pedigree is well authenticated, and it changed hands in the Cuff sale in 1854 for £260, and in the Brown sale, some years later, for £345.

THE celebrated blast furnaces at Coneygre, Tipton, belonging to the Earl of Dudley, have been sold by auction for the old materials they contain. The furnaces were erected more than 60 years ago, and were kept regularly at work until 1892 or 1893, when they, in common with so many other Staffordshire blast furnaces, were blown out, the reason being that, under the altered conditions of the pig-iron industry, they could not be worked at a profit. Each of the three furnaces was capable of producing only about 150 tons of iron per week, whereas the new type of furnaces with which they had to compete, produce two or three times that quantity. There was also the great cost of local iron-stone, which rendered their profitable working almost impossible. We understand that Staffordshire iron-stone costs 10*s.* or 12*s.* a ton to raise it from the mines, to which cost has to be added the charges for calcining, whereas ironstone in the competing districts of Derbyshire, Northamptonshire, and other places can be delivered to the furnaces for about 4*s.* or 5*s.* a ton—facts which fully account for the great number of blast furnaces that have been demolished in South Staffordshire within the last two or three decades, Tipton itself being the chief sufferer in this respect, for the district of Tipton has lately seen some 30 of its furnaces sold as old material and levelled to the ground, while more than a dozen of its mills and forges have also been demolished as affording no hope of profitable working.

THE system of electric clocks which has been under the consideration of Glasgow Corporation for some considerable time was inaugurated last week, when, for a beginning, ten dials will be erected in various centres of the city. The idea is to give uniform time throughout the city. The system was originated and perfected by Professor Becker, of Glasgow Observatory, from which the clocks will be regulated. There will be three circuits, one being placed in the Municipal Buildings in George Square. In due time the area will be extended, and the intention of the Corporation is to erect some 200 or 300 dials at the corners of the leading streets.

THE parochial authorities (presumably those of St. Margaret's, Westminster) are just exhibiting the grossest possible piece of Artistic incapacity. Having erected at Picadilly Circus a very commonplace central lamp standard, they have had no further use for the lamps abutting on the pavement. In an unusual fit of economy they have cut these off about four feet from the ground, and inserted in the top an iron ball-shaped finial. Can we possibly expect our schools of Art to improve the nation's taste when the most central promenade in the metropolis is thus ignorantly treated by those who presumably should be educated to the point of designing a lamp-post?

THREE interesting relics of the early days of Chicago have been presented to the Mayor there. The relics consist of a carpenter's square, a whetstone, and a large key. The articles were covered with rust and were of odd design. The square was used by a Mr. Philips, who is a carpenter, and now 85 years old, in building the first frame house ever constructed in Chicago. The house was built near old Fort Dearborn, for Mark Beaubien, and was used as a tavern. The whetstone was given Mr. Phillips by Lieutenant Jamieson, who was stationed at Fort Dearborn. It was also used in building the tavern. The key was made by Mr. Phillips for Lieutenant Jamieson to unlock the Government strong box in the Fort, the original key having been lost.

PROFESSOR BALDWIN BROWN, Edinburgh University, recently delivered the first of a series of lectures on Art, in the Academy, Moffat. He explained that the course will embrace Architecture, Sculpture, and Painting. Taking the first head he stated that Architecture must be considered with relation to site and surrounding. An Architectural monument must be imposing in mass, and give an idea of sublimity. It should be employed in due relation to the service it is to fulfil, and express the spirit of the age. Proportion must be regarded as the essence of Architecture. The lecture was illustrated by numerous views of buildings, ancient and modern.

A SUM of £10,000 is required for the repair of the fabric and an endowment fund for Tewkesbury Abbey. The appeal by the Archdeacon of Gloucester ought not to pass unnoticed among the thousands to whom this ancient edifice has been an inspiration and a delight. As at present constituted the Abbey is without endowment, and its income is far short of the sum required for the maintenance of the building. Even now the roofs and walls need immediate repair, and any delay in finding the requisite funds to put them in order can only result in the necessity for greater expenditure at a future date, for it cannot be supposed that the Abbey will be suffered to continue in its present neglected condition.

FOR some time past an agitation has been going on for the widening of the historic old bridge which crosses the Tweed at Berwick and links England to Scotland. The bridge, which occupied over 24 years in erection, was completed in 1634. It is 338 yards long and 17 feet broad, and is composed of 15 arches. The Corporation of Berwick still receive an annual grant of £100 from the Crown towards its maintenance. Messrs. Sandeman and Moncreiff, C.E., Newcastle, have prepared a report, stating that they could not recommend that anything be done to alter the present bridge, as they were afraid that it would not bear interference. They recommend, therefore, that a new footbridge be erected near the the present bridge at a cost of between £6,000 and £7,000.

WITH regard to the proposed new hospital for Manchester, Mr. Walter Speakman, Secretary to the David Lewis Trust, writing to Mr. Thomas Browning, Secretary to the St. Mary's Hospital, says:—The advantages of the Stanley Grove site are so overwhelming compared with any other site in or near the centre of the town which it would be possible to obtain that its adoption must be considered an essential part of their scheme. These advantages are as follows:—1. A large area—about 9,000 square yards. 2. No expenditure of any part of the funds in the purchase of land, except a small annual chief rent of £105. 3. Fresher air, more light, and greater freedom from noise than can be obtained in the centre of the town. 4. The contiguity of the Whitworth Park, ensuring a permanent open space opposite the hospital, which would be useful to patients during convalescence. The cases of patients who, your committee suggest, would suffer owing to the distance from their homes of the proposed hospital would, in the opinion of my committee, be fully met by the town establishment for out-patients and maternity and emergency cases which forms part of the scheme. Under these circumstances, my committee instruct me to say that they are unable in the public interest to modify this all-important part of their proposal. Assuming that this decision represents the feeling and deliberate judgment of the subscribers to your hospital, my committe have come to the conclusion that it would be useless any longer to continue negotiations with the joint committee, and they have, therefore, no alternative but to withdraw their offer of £70,000 for the erection of a new building to take the place of the present St. Mary's and Southern Hospitals.

Professional Items.

ABERDEEN.—A new gymnasium in Blackfriars Street, which forms the latest addition to the equipment of Robert Gordon's College, has been opened. The gymnasium has been erected from the designs of Messrs. Jenkins and Marr, Architects.

BARNSLEY.—At a meeting of the School Board, it was decided to accept tenders for the alteration and enlargement of the Eldon Street Boys' and Girls' Schools, as follows:—F. Taylor, mason, £345; E. Ashworth, joiner, £396; Rogers and Squire, plumbers, £66 10s.; E. Fleming, plasterer, £39 15s.; J. Charlton, painter, £13 10s.; E. Fleming, slater, £62; S. Rushforth, heating apparatus, £124. The amount of tenders for the alteration of the Harvey Institute had been considered, but their amount was so far in excess of the amount anticipated that the committee had instructed the Architect to amend his specifications, so that the work might be done at a cost more nearly approaching the amount thought of—£2,000.

BATTERSEA.—The new theatre has been opened, it is built on Lavender Hill, within easy reach of Clapham Junction. It is a two-tier house, the reserved and unreserved stalls and pit being on the ground floor, the dress circle and balcony on the first tier, and the amphitheatre and gallery on the second tier. The stage is 70 ft. wide and 50 ft. deep, and the whole building is well fitted up and furnished.

BELFAST.—The Rosetta new National School buildings were opened last week. The managers decided that the school should be subdivided on separate floors, and accordingly adopted a plan especially devised for giving easy facility for assembling all the scholars in one auditorium. The centre of the group of school buildings is the large schoolroom, 62 feet long by 32 feet wide and 23 feet high. Opening off this in transepts are a pair of minor schoolrooms, separated from the central hall by large sliding screens of special construction. There are also a number of separate class-rooms, each being 13 feet square. The gas lighting is chiefly by coronæ, and the heating is by Musgrave's small-bore apparatus. The material used is brick, relieved with cut-stone dressings and carved panels in suitable positions. The work has been carried out by Mr. James Kidd, from the designs and under the superintendence of Messrs. James Phillips and Sons, Architects, Royal Avenue.

BIRMINGHAM.—St. Patrick's Church, which has been erected in Frank Street, Highgate, as a chapel of ease to St. Alban's, was opened last week. The edifice is in the early English style of Architecture, and when completed will form an interesting addition to the ecclesiastical buildings of the city. At the present time the Church consists of a nave, north aisle, and double south aisle, with a chancel in course of erection, and a baptistery under the future tower. There is seating accommodation for between 600 and 700 worshippers, and the total cost of the building, which will ultimately form a parish Church in an independent district, will be between £4,000 and £5,000.

BIRMINGHAM.—The Tame and Rea District Drainage Board gives notice of its intention to apply to Parliament for various powers in connection with the scheme for the extension of the sewage farm and works. The scheme to which the notice relates was before the Drainage Board in April last, and contemplates the acquisition of additional land, of which the principal portion is an area of about 807 acres, situated immediately below the present farm boundary, and bounded on the north by the Tamworth Road, on the south by the River Tame, and on the east by the road from Curdworth Bridge to Dunton. There are also other plots proposed to be taken, which make up a total of close upon 1,200 acres. Powers are also sought to make new conduits; to acquire the mills which give the name to the locality, known as "Forge Mills"; to deepen and otherwise interfere with the River Tame, its weirs and sluices; to erect a pumping-station near Minworth, so as to permit of irrigation upon land above the gravitation level; and to carry out other works, and to borrow the requisite funds necessary to the extension of the sewage farm and works. The total capital expenditure contemplated is £244,500.

BOOTLE.—Mr. Bicknell, of the Local Government Board, held a public inquiry at the Town Hall, Oriel Road, with reference to the application of the Bootle Town Council for sanction to borrow £4,698 for the purchase of land as a site for Technical School, the extension of the Corporation buildings, and other purposes. The Town Clerk said he did not think there would be any opposition to the application. Negotiations had been entered into with Lord Derby, who agreed to sell to the Corporation the whole of the unoccupied plot of land, covering 10,440 square yards, lying to the east of the Town Hall, at a cost of 9s. per square yard. This was the price of the freehold, which was thought very reasonable, as the site was a most suitable and convenient one. The present buildings were totally inadequate for the purpose, and were of such a character as to be absolutely prejudicial to the health of those attending the Technical School.

BURNLEY.—The new Congregational Church recently opened here is an effective specimen of the Renaissance style of Architecture, the material employed being the soft grey sandstone of the adjacent Yorkshire moors. The site has been ingeniously economised with a view to providing space for both school and Church in a continuous line of building; and extra class-rooms, together with a large gymnasium, have been constructed under the Church, and rendered conveniently accessible by means of a small stair from the interior of the school. The Church provides sittings for 670 worshippers, and it is furnished with most modern appliances, except the electric light. There are two transepts at one end, and a small gallery at the other, opposite the recess prepared for the organ. The Architects are Messrs. Hitchon and Pritchard, of Burnley.

BUXBURN, N.B.—The new Railway Station buildings, which were commenced in March, are now approaching completion, and it is expected that they will be opened by the end of December. The main building, containing the booking office, stationmaster's room, and the principal waiting-rooms has been erected on the down platform, and a little to the north of the old building. It is a wooden structure, founded upon a solid stone and lime base, and has a length of about 100 feet. The distinguishing features of the frontage are two projecting gables, one at the end and one midway along the main structure. Between these gables is the main entrance to the station, opening into the general waiting hall. The main building stands some 20 feet from the edge of the platform, and the intervening space is covered by a substantial wrought-iron verandah with a glazed roof. The verandah is supported on metal pillars with ornamental tops. On the up platform there has been erected a smaller building, measuring 68 feet in length, which is divided into two waiting-rooms. Its erection was a matter of considerable difficulty, owing to the fact that some few feet from the line the ground falls away suddenly, sloping down steeply to a large pond about 40 feet below. This circumstance necessitated the driving of long piles into the bank, and on these the building is based. The contractors for the station buildings were:—mason, John Smith, Kintore; carpenter, John Buchan, Monymusk; ironwork, Messrs. M'Kinnon and Co., Aberdeen; painter, George Donald and Sons, Aberdeen; glazing, The Pennycuik Glazing Company; plumber, Blaikie and Sons, Aberdeen.

EDINBURGH.—On Friday last was opened the new Church at Montgomery Street, Abbeymount Hall. The Church, to be known as the Kirk Memorial Evangelical Union Church, fronts Montgomery and Elgin Streets, and is designed in a phase of the perpendicular period, a style developed in the fifteenth century in England, but little expressed in Scotland. It is cruciform in plan, and comprises nave, with transeptal projections and choir recess with organ chamber. The ground level of the site is considerably below the street level. That condition has been utilized by forming a substructure to the Church, arranged as hall, manager's room, vestry, kitchen, lavatories, and cloak accommodation. The entrance front is to Montgomery Street. The door, with its projecting crenelated and sculptured stone porch, is placed at one side of the main gable, and is flanked by the retiring room projection on the west side. The main gable bears in the centre a wide and gracefully traceried window, flanked by buttress projections, which are terminated with relieved carved pinnacles. Similar buttresses with pinnacles are carried up at the outer angles of the gable. The east and west fronts are treated in a simpler manner, but assisted by the transept projections group very harmoniously. Beside the west transept is an entrance to the hall and vestry staircase, forming also an egress door from the Church, and a further outside entrance is provided for the hall on the east side. The Church accommodates nearly 400 persons, and the hall upwards of 200. The interior of the Church is constructed with open timber roof, with infilling of plaster in a series of panelled spaces, the length of the nave being subdivided by heavy frames set on the walls and strutted up from moulded stone corbels. The Church is built of Binny stone. The Architect for the work is Mr. Hippolyte J. Blanc, R.S.A.

RETFORD.—The Parish Church of North and South Wheatly with West Burton was reopened, on Thursday, by the Bishop of Southwell. The Church had been closed since April last for alterations. The work has been supervised by Mr. Hodgson Fowler, Architect, of Durham, and the contractors were Messrs. Close, of Lincoln. A new roof has been constructed, and the chancel arch has been restored. The Church has been re-seated, and the cost of the whole alterations has been £1,400. As part of the restoration, the bells in the tower have been re-hung, and one new bell has been added, making a peal of six.

SELSTON.—A special meeting of the Selston Parish Council was recently held to examine the revised plans of the sanitary scheme for the parish, submitted by the Basford District Council. The plans, when first prepared, were for a general scheme for the whole of the parish, at an estimated cost of £13,500, but believing such a scheme to be unnecessary the Council strongly opposed it, and as a consequence the engineer was instructed to prepare a fresh set of plans for a scheme to deal only with those parts of the parish that really required sewering. These were the plans now laid before the Council. Mr. W. Gill presided, and Mr. E. Briggs also attended the meeting. The Clerk read the estimate which had been received from the engineer, and which stated that £7,000 would cover everything that could possibly be foreseen. It is proposed to divide the scheme into five sections, as follows:—No. 1, to include Westwood, Jacksdale, and Pye Hill; No. 2, to cover the locality near the Bull and Butcher. The third is only a small section at Underwood, and the fourth will deal with the Pinxton Station and Beaufit Lane localities. Section No. 5 will deal with Upper Mexborough. The Council unanimously approved of the plans.

FOR the Friends' Adult School, at Barnsley, new premises are about to be erected, for which a site has been secured in Wellington-street. The cost is estimated at £2,000, of which £1,200 has been raised.

A HUGE transmitter has been placed in the pulpit of St. Michael's, Chester Square, London, by a telephone company, so that Canon Fleming's sermons may be heard in hospitals and elsewhere.

MR. HENRY TATE has offered the site of a library for Balham. Balham has increased enormously of late, and has now reached the dimensions of a large town.

MACCLESFIELD Parish Church is to be restored at a cost of £10,000 or £20,000, of which £500 has been promised by Mr. Peter Brocklehurst, provided the work is begun in two years.

AN attempt will be made during the next Session to obtain Parliamentary powers for the construction of an electric tramway or light railway from Bridlington to Flamborough.

THE Stockholm Exhibition of 1897 will have a machinery hall of iron and glass, with an area of about 100,000 square feet. There will be three large halls for Norway, Sweden, and Denmark, and smaller buildings for other countries. It is claimed for the industrial section that it is one of the largest wooden structures ever built. It will have a dome 300 ft. high, surrounded by four turrets.

SOCIETY MEETINGS.

The Architectural Association.—Considerable discussion followed the reading of the paper on "Garden Design," which we give in another column, by Mr. F. Inigo Thomas, on Friday night. In the absence of Mr. Beresford Pike, Mr. John Begg occupied the chair. Mr. J. A. Gotch, who proposed the vote of thanks, said that Mr. Thomas was a master of the Art both of laying out gardens and describing them. Those present, he was sure, had all gained some few notions, and, of course, one of the principal things was the desirability and use of fine formal lay-outs. However, he was not one of those who were in favour of lay-outs on an enormous scale, like those of Versailles, because, as a rule, one could not appreciate them at all, unless one had a plan as one went round. One could not at one glance divine what was in the designer's mind. A formal lay-out on a vast scale, such as had been shown to-night, might have done very well for great nobles in times past, yet he ventured to think that for ordinary 19th-century people, smaller lay-outs would be more suitable, especially if one considered that the chief thing was not to get, say a Dutch garden of this or that period, but a pleasing effect generally. Of course, he stood under correction by Mr. Thomas, being only one of his pupils. In his opinion, a garden should be so arranged that one could get a good view of the house from different points, and different views from different rooms of the house, and that there was no necessity for seeing the whole of the gardens at once. Mr. Thomas was very partial to long vistas, terminated by either a summer-house or a statue; the latter is rather a high note, which might be unsuitable for small lay-outs. The vista should not always be terminated by a summer-house, because summer-houses had often better be situated in more secluded spots of the garden, for reasons which it should not be difficult to guess. Anyhow, there should be a certain part of the garden which could not be easily seen. There ought to be thickets for birds, &c., and places only penetrated by the gardener and people in search of tennis-balls, or something of that kind. Mr. F. G. Hooper said, that there ought to be level spaces arranged at different levels, connected by slopes or steps, and divided off by some definite boundary, such as hedges; one could thus obtain different shades. Hedges in general make a delightful background both in winter, when they were dark, and in spring, when they charmed as by their bright-green appearance. Another important thing was to get one's paths level and dry. The views, which he was glad to say were shown with the Association's own lantern, were very fine, especially some of the Italian ones, though one need not go so far south as that to see fine lay-outs. He himself had only lately returned from Italy, and recollected having seen a magnificent lay-out at another Villa d'Este than that mentioned in Mr. Thomas' paper, viz., on the shores of Lake Como. It had been said that the larger lay-outs had nearly all disappeared. This was perfectly true, If he remembered rightly, there was a large lay-out near Kettering, in the grounds of Bowden (?) House, where the paths and avenues totalled up to something like 70 miles. This was due to the whim of one of the former owners, a duke, who wanted to have a drive constructed all the way from his estate to London; but, as there were certain difficulties in the way of his scheme—even for a duke—he decided to have the whole distance laid out in his own grounds, where this unique lay-out was to this day. He then seconded the vote of thanks proposed by Mr. Gotch. Mr. F. M. Elgood also spoke.

Leeds and Yorkshire Architectural Society.—The members of this Association held their opening meeting on the 16th, at the Queen's Hotel, Leeds. The proceedings opened with the presidential address of Mr. William Watson of Wakefield, which will be found on page 251.

THE Admiralty has given instructions for plans to be immediately prepared for the erection of new naval barracks at Sheerness, for the accommodation of the Gunnery School established at that port four years ago. The block of buildings occupied at present affords insufficient accommodation, and quarters are to be provided in the new building for 30 officers and 1,000 seamen.

Correspondence.

A SUBSCRIBER, EDINBURGH.—Dear Sir,—We are obliged by your letter, and are writing to Messrs. Menzies with regard to your complaint.—THE PUBLISHER.

THE L.C.C. AND THEIR WORKS.

To the Editor of THE BUILDERS' JOURNAL AND ARCHITECTURAL RECORD.

SIR,—Will you permit me space to draw your attention to one of the efforts of the Works Department of this unaccountable body? The fire station to the Embankment, which is being built by these self-constituted contractors, is now approaching completion, and on removal of scaffolding a more unsatisfactory result can with difficulty be imagined.

A lofty, barrack-like, stock-brick structure rears itself to John Carpenter Street with distressing effects, viewed from the Embankment and Blackfriars Bridge. There might have been a picturesque grouping with Zion College and the Thames Conservancy Office, and to add to the disfigurement a zinc revolving ventilator appears to terminate Sir Arthur Blomfield's roof.

A considerable sum, however, has been spent on the Carmelite and west front, which, judging from the proximity of the buildings to be erected opposite, and its distance from the Embankment, will be practically unseen.

I am, Sir.
Yours obediently,
JOHN W. RHODES.

Mitre Court Chambers, E.C.
19th November, 1896.

KEYSTONES.

AT a public meeting held at Belfast last week, it was decided to erect a statue of the Queen, in commemoration of Her Majesty's reign. The cost of the statue will be £5,000.

FROM excavations made on the site of Carthage, in Tunis, M. Delattre has found that the ancient amphitheatre was much larger than has been supposed, and attains to the dimensions of the Colosseum at Rome. The seats still bear the names of what we should now call "regular subscribers."

THE district north of the Marylebone Road, at the Lisson Grove end, presents a scene of devastation. Two squares and 25 streets have been obliterated to make room for the terminus of the Manchester, Sheffield, and Lincolnshire Railway, which will run through St. John's Wood, and end at the Marylebone Road, on which thoroughfare the terminal station will have its principal frontage.

WE hear that Hengrave Hall, near Bury St. Edmunds, which was for generations in the Gage family and latterly belonged to Earl Kenmare, has come into the market. The Hall, with its magnificent carved facade of Tudor Architecture in stone, the inner quadrangle, the Chapel, and nun's gallery have long been objects of special interest to antiquarians, in fact Hengreave is commonly regarded as the finest example of ornate Tudor work in England.

THERE has just been placed on exhibition in the Egyptian Galleries of the British Museum a sacred shrine inscribed with the name of Necho. The shrine is about four inches square, and shows traces of having at one time been inlaid with either silver or gold. These shrines were mostly kept in the temples of the gods to whom they were dedicated, and were carried about at the different festivals. A few gold and silver statuettes of gods, together with a crystal representation of Ta-urt, the Phœnecian goddess, have also been exhibited.

MR. MOIR, Inspector of Weights and Measures, reports that there had been discovered in a lumber-room, at Marischal College, "an accurate standard brass scale of comparison," made by Edward Troughton, London, in 1801. The instrument, which is valued at £60, was used in 1811 by Mr. Jardine, Edinburgh, and Professor Patrick Copland, who occupied the Chair of Mathematics in Marischal College, in the comparison of a small ell-bed, the property of the Magistrates of Edinburgh. The instrument was afterwards used by the Astronomical Society of London, but disappeared.

Trade and Craft.

THE SEWAGE AND ELECTRIC LIGHTING WORKS AT WAKEFIELD.

Yesterday, at the Wakefield County Court, before Judge Greenhow, Mr. Hudson, on behalf of the City Council, obtained an extension of the period during which the Corporation is to carry out works of sewerage and sewage disposal for twelve months from September last.

ASBESTOS FOR DECORATIVE PURPOSES.

Another instance of the fireproof character of the asbestos patent "Salamander" decorations is given in a recent issue of the Irish Times, with reference to the decoration of the Burlington Hotel and Restaurant, owned by Mr. Thomas Corless:—"The ceiling in the principal department consists of over 200 ornamental panels of asbestos, beautifully moulded. This portion of the decoration has been executed by Messrs. Martin and Sons, of Stephen's Green. When Messrs. Martin's establishment was partially destroyed by fire, the ceiling for the Burlington was in one of the workshops which was burned down. It was found the day after the fire that, while everything around had been completely destroyed by the flames, and that even solid metal pillars had been melted by the tremendous heat, the asbestos ceiling remained absolutely uninjured." This is a second case of the kind which has occurred within a short time, and it is not surprising that these new decorations are already finding much favour among Architects, and superseding inflammable materials. We understand that the ceilings of the extensive new premises of Harrod's Stores, at Brompton, have been covered with the "Salamander" material, which is highly effective artistically, as well as being fire-resisting. It has also been adopted for the decoration of cabins in ships of H.M. Navy. The patentees and manufacturers are the United Asbestos Company, Limited, No. 158 and 160, Charing Cross Road.

M. S. AND L. COMPENSATION CLAIM.

The award given by Sir Frederick Bramwell, upon the claims of the Nottingham Corporation and the Nottingham Board of Guardians against the Manchester, Sheffield and Lincolnshire Railway Company, in respect of property to be acquired in the borough for the purpose of the Company's extension to London scheme, has been made known. The total claim of the Corporation amounted to £225,155, and that of the Guardians to £130,986. Sir F. Bramwell has awarded the Corporation £122,653, and the Guardians £31,244.

FIREPROOF PAPER.

An account of the new fireproof paper prepared by L. Frobeen, of Berlin, shows the production of a valuable article for industrial and other purposes. Ninety-five parts of asbestos fibre of the best quality are washed in a solution of permanganate of calcium and then treated with sulphuric acid, the fibre being thus bleached. After treating the fibre in this manner, five parts of ground wood-pulp are added, and the entire mass placed in the agitating box, with an addition of some lime water and borax. After being thoroughly mixed the material is pumped into a regulating box and allowed to flow out of a gate into an endless wire cloth, where it enters the usual paper-making machinery. Paper produced in this way, it is reported, will resist even the direct influence of a flame, and may be placed in a white heat with impunity. Ordinary paper may be made fireproof by treating it with a fluid consisting of 33 parts manganate of chloride, 20 parts ortho-phosphoric acid, 12 parts carbonate of magnesia, 10 parts boric acid, and 25 parts chloride of ammonia in one quart of water. This solution is applied several times, and paper saturated with it will resist great heat and the direct influence of flame for some time.

JARRAHDALE JARRAH.

The "Norden" has arrived from Rockingham, W.A., with 724 loads of Jarrahdale Jarrah aboard, to the order of McLean Bros. & Rigg, Limited, 1, Fenchurch Avenue, London, E.C.

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GROUND PLAN



WOODSIDE, STANMORE. ARNOLD MITCHELL, F.R.I.B.A., ARCHITECT.

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 95. **Wed., December 2, 1896.**

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The proposed Infectious Diseases Hospital at Southampton.

THERE has been some considerable dalliance in the Southampton Town Council with regard to the acceptance of the design for the new Hospital. It will be remembered that about a month ago the first place in this competition, for which forty-three firms of Architects entered, was awarded, under the assessorship of Mr. W. Emerson, to Messrs. F. H. Greenaway and J. A. Smith, the second award falling to Messrs. George E. Halliday and John W. Rodger. It appearsfrom a report in the Hampshire Advertiser, of a meeting of the County Council for the borough, that there is a strong wish that a local firm should be entrusted with the building. The number of the designs next in order of merit was asked, and as the third happened to be that of the Southampton Architect, the attitude of a certain party in the committee was strengthened, and, in face of the conditions of competition, which explicitly granted the building of the Hospital to the firm awarded first premium, its members have been trying to get round their undertaking in a manner which certainly does not do them very great credit. Quoting from the account of the Hampshire Advertiser, it seems that on the proposal for the adoption of the report of the Health Committee, stating the awards of the assessor and the names of the submitters of the four first designs, "Mr. Le Feuvre asked what was their" (the Council's) "position with regard to the gentlemen who sent in plans, on the question of copyright?" and added that "his idea was that the committee was not satisfied with any of the plans." When the town clerk had stated that under the conditions the first and second awards only were to become the property of the Corporation, "Mr. Sanders remarked that the award of the assessors was as to the payment of the premiums, but it would be more satisfactory to the people of the town for the third plan to be carried out." Then "Mr. Burbage wished to know whether in voting for the report they were binding themselves to accept the first and second awards?" and "Mr. Lamport asked whether they were under a contract to confirm their awards?" and went on to suggest that as a question had been asked at a previous sitting as to the title to the freehold of the site, the question of the awards should be set in abeyance to the acquisition of the land. After the town clerk and the senior bailiff had reminded the house of their undertaking in the conditions, that the Hospital should be built in accordance with the design of the first award, and that the purchase of the site only awaited the decision of an arbitration organised to settle the price. "Alderman Bance thought that the plans would provide a Hospital that would be too expensive and luxurious for that borough," and that as "they could not take a bit out of one, and a bit from another," they ought to pay the awards and refer the plans to an emergency committee to "thrash out" and reduce in price. Mr. Lemon then spoke forcibly, calling on the committee as "honourable men" to carry out their engagement; explaining that the Hospital was cheap, that a better set of designs could not have been submitted; and pointing out that the inducement for Architects to enter in competition was not the premiums, but that the promise that the submitter of the successful design should be employed to execute it. Upon this, Mr. Le Feuvre rose to say that "fortunately they had not secured the freehold of the land on which they proposed to erect a Hospital," and that "the only way out of the difficulty would be to make a compromise with the tenant, and decide not to erect a Hospital there, thereby saving a considerable sum," and Mr. Sanders said they were in an unfortunate position, because he took it that the feeling of the Council was not that they must not select the first design so much as the fact that they were putting it into the hands of absolute strangers to carry out this important work," and added that it would have been a source of the greatest satisfaction to see the local firm carry out their design. Alderman Bone expressed sorrow that "the matter had fallen into the hands of other than local men," and said "a



"ST. KEVERNE," HARROW. ARNOLD MITCHELL, ARCHITECT.

simple way out of the present difficulty would be to pay the men their premium, and then let the emergency committee go through the plans and see whether they could not be cut down." Finally, on the suggestion of the senior bailiff, the discussion was postponed, and there the matter rests. The report of the Health Committee was, however, accepted by a large majority, though several members did not vote. Surely we may think it is cases such as these that the Royal Institute of British Architects should take up. For what material purpose does the Institute exist, if its first business is not to watch and forward the interests of the profession in general, and its members in particular? The successful competitors are both associates, and the assessor a fellow and the hon. sec. of the Institute itself.

THE R.I.B.A. MEETING ON MONDAY NIGHT.

THE Third General Meeting of the R.I.B.A. was held on Monday night. The minutes of the last meeting having been signed by the Chairman, the decease of the following members was announced:—The Right Hon. Lord Savile, Hon. Associate; Frederick Morley, Dublin, Associate; William Alphonsus Purdue, Associate. At the close of the meeting a Special General Meeting was held, Mr. Aston Webb in the chair, when attention was called to the books and drawings belonging to the late Secretary, Mr. Wm. H. White, which were on the table. Mr. Arthur S. Flower, M.A., F.S.A., then read his paper on

DESIGNS AND SKETCHES BY WM. HENRY WHITE,

and said, "The drawings exhibited here to-night almost speak for themselves; they are by no means a complete collection of the sketches and designs of our lamented Secretary; they are simply a chance gathering of specimens of his work, many of them seeming to owe their preservation to accident. Enough are here to bear witness to the high quality and versatility of his powers, but it is obvious that between these drawings there are many gaps. Results, such as we see here, could not have been achieved without many intermediate stages; some of these are just indicated; others not at all. I have tried to arrange all the obtainable drawings in chronological order, so as to, if possible, add a little to the life-history of our friend. The earliest of the drawings exhibited is the small sketch in water-colours of a farm and a heap of elms, done near Lewisham. The date of this is 1857, its author then being 19 years old, and it may be called slight, of course, though not without promise; but the following year shows an extraordinary advance. This holiday work of 1858 (Mr. White was then serving his articles with George Morgan, in London), is represented by six sketches, which would do credit to any Artist of the same age. They are water-colour sketches done at Lewisham, Ravensbourne, and Frinton (near Walton-on-the-Naze). Of the next year we have no reminiscences, and of 1860 only one English sketch of some Norman work at Canterbury. Later in that year White's continental period begins; this tour seems to have begun with Belgium and the Rhine. All this time he has been considerably influenced by the work of Pront, as may be seen in the sketches from Antwerp (Cathedral, water colour), Ghent, Louvain (Hôtel de Ville), Cologne (Cathedral), and Strassburg. Further, we have some beautiful sketches of the Palais de Justice at Rouen, the Church of St. Ouen, Rouen, and portions of Rheims Cathedral, and others. There are also some remarkable and carefully executed views of Mount St. Michel. A few brown ink drawings from Carcassonne remain from 1868, and the French series is completed by the water-colour sketch of the Tour de Philippe le Bel, at Villeneuve-les-Avignons, 1869, a capital rendering of the four-squareness of the tower and the glare of Provençal sunshine.

WHITE'S ARCHITECTURAL WORK IN FRANCE,

so far as illustrated by the drawings before us, mainly consisted in the rebuilding, on a much grander scale, of the Chateau de Boizy, at Vernon, and of large additions to the old Chateau de Martinvast, near Cherbourg Manche. In 1870, White entered into several competitions, both in France and in England. When in the former country he received several medals for being placed second and third. All this was done at the age of 30. Of his Architectural work in India we have here sketched plans of the Court of Small Causes in Calcutta, the Bengal Presidency College, a Monument to Chief Justice Norman in Calcutta Cathedral. After his return to England, White never had another chance of erecting a building of his own designing, though some competition drawings for a large boys' school are among our collection, to which no particulars are attached, and which have a great deal practically, as well as artistically, to recommend them. The last, but not the least, important drawing I may draw attention to is the one known as the 'Queen Anne,' and which was executed to illustrate a paper read before the Architectural Association, on January 23rd, 1874, on 'The Present State of Thought Concerning Architecture.' The drawing was accompanied by a table, specifying the foreign and English sources from which each item of the design was copied. The whole thing is highly characteristic of Mr. White's sense of humour, and the design bears the inscription: 'De Gustibus Non Disputandum, &c.' If we were to take the trouble to peruse this paper now, we should clearly find White to to have been a true prophet. I think we cannot do better now than inspect the plans on the table, and the drawings on the screens. I think I may state without fear of contradiction that while the Institute gained an ideal Secretary, the world lost an Architect of no mean ability." Mr. Statham said he was very pleased to propose a vote of thanks to Mr. Flower, for, although his paper was a short one, it must have taken him considerable time and cost him a good deal of trouble to prepare it. From the drawings exhibited in that meeting it clearly showed that Mr. White possessed more varied accomplishments than many of his friends were aware of. Mr. Brydon seconded the vote of thanks and said that he did so because in the interesting paper read by Mr. Flower they had seen Mr. White as an Architect and not only as their Secretary. What had struck him more particularly was that the man who could design and carry out work in the eighteenth-century French style of Architecture and then produce a paper like that accompanying the Queen Anne drawing must of necessity have been a most remarkable man. His paper on the "Present State of Thought on Architecture" was all the more remarkable considering that at the time the English were all running after Gothic, and that since then in the whirligig of time they had more or less come round to old Classic instead of old Gothic. The drawings and plans should be carefully treasured among the belongings of the Institute. Of course they all remembered the gentle satire he used to infuse into his papers. The President then suggested that perhaps Mr. Stannus might be able to tender some further information about Mr. White's career, but Mr. Stannus replied that all the information he was able to give had already been published in THE BUILDERS' JOURNAL; he had been obliged to write the notice in question rather hurriedly and under great pressure. The more he looked into Mr. White's work the more he was permeated with a strong feeling of reverent admiration. When he had come in contact with the late Secretary, he had often thought him a little masterful, but then he never once realised that there was all this work behind him. Had he known at the time what he had learnt to-night, he would gladly have bowed down to him, and it was somewhat sad to think that now they could no longer pay reverence and respect to him. He had much pleasure in supporting the vote of thanks to Mr. Flower for calling attention to these drawings of Mr. White's. Mr. Aston Webb: I am told that the two shadows will go back to the owners, who very naturally and properly were anxious to retain the ownership of them, whereas, thanks to the kindness of Col. White, the remainder of the collection had become the property of the Institute. Mr. Stannus asked if it were not possible to retain some photos of the shadows in question, and suggested that they might eventually be added to the illustrated journal of the Institute. Mr. Webb, in reply, said that one might try and obtain the owner's consent to do this. "Our late Secretary has unsparingly devoted himself to our interests for 18 years, and indeed he seemed to have no other interest in life but to further and improve our position." He had much pleasure in putting to Mr. Flower the various votes of thanks, and he thought that he might couple with it a vote of thanks to Col. White for these drawings and books.—Mr. Flower said that his paper was certainty short, but he thought that the main object of those present should be to look at the drawings, and not to hear comments on a man whom he had only known for a few years. He was almost surprised to hear that these drawings were not better known, but this was probably greatly due to Mr. White's reticent disposition. He took this opportunity to thank Mr. Northover for bringing the drawings together and arranging them.—Mr. Aston Webb then announced that the next meeting will be held on Monday, December 14th, when Messrs. Wm. C. Street and Max Clarke would report upon the second series of experiments upon brickwork, conducted by the Science Standard Committee.

GLASGOW IMPROVEMENTS.

THE Glasgow Corporation Improvement Bill has been issued. It consists of six sections and contains forty-six clauses. Part I. relates to the city improvements, and contains powers for the widening of Nelson Street, and to shut up the following streets, namely, Nelson Street, Market Street, Back Wynd, Margaret Place, Antigua Place, Antigua Court, Wallace Court, Tontine Lane, Union Court, Buchanan Court, Jeffrey's Close, and Merchant Lane, and to acquire the lands referred to in the different sections, the period of compulsory purchase being limited to ten years. Clause 10 gives power to deal with unhealthy areas on a report from the Medical Officer of Health, and, after petition, to the Secretary for Scotland. Clause 11 makes special provisions and modifications of the Land Clauses Acts, so that the lands required for the purposes of the Act shall be acquired by arbitration. By Clause 14 the Corporation are authorised to take lands by agreement, and under the following clause power is asked to take down buildings on the land acquired, to lay out or sell such lands, to maintain such portions for the purpose of providing open spaces or places of recreation, or to erect buildings upon the lands, to dispose thereof, or to lease the same. By Clause 16 power is given to erect and maintain dwelling-houses, including model lodging-houses for mechanics, labourers, and other persons of the working and poorer classes; and by the following clause it is provided that the Corporation shall not eject within any period of six months any number of the labouring classes exceeding 500 without certificate from the sheriff that suitable accommodation has been provided, or exists for them in the immediate neighbourhood. Clause 17 authorises the imposition of an improvement charge in respect of any substantial and permanent increase in value, clearly shown to be derived from street-widening or other operations carried out under the Act. Power is given by Clause 20 to borrow, for certain purposes of the Improvement Acts of 1866 and 1894, £103,245; and for the purposes of this Act such moneys as they may think proper, not exceeding £600,000. Clause 22 provides for a depreciation fund of 1 per cent. on the cost of all buildings erected under the Act; and by Clause 24 an assessment for the purposes of the Act, not exceeding 1d. per £1 on the rental, is authorised to be levied in equal proportion on owners and occupiers.

THE DECORATION OF PUBLIC BUILDINGS.

BY WALTER CRANE.

IN the extracts of the lecture delivered at the Arts and Crafts Society's Exhibition, which appeared in our issue of the 25th November, please read "best" instead of "least" in reference to Mr. Poynter's St. George in the House of Commons.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

MEN WHO BUILD.

No. 47.

MR. ARNOLD MITCHELL, F.R.I.B.A.

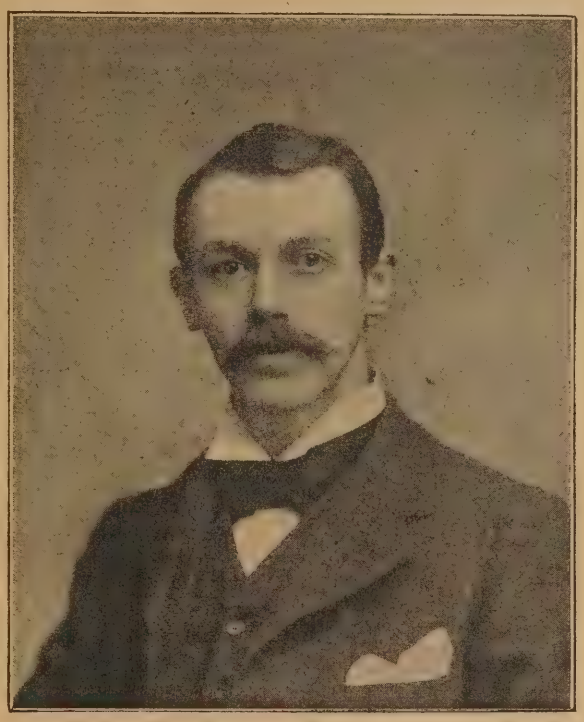
MR. ARNOLD MITCHELL is one of those happy men who have been able to avail themselves of the Architect's prime prerogative, and build himself a house, and he has further had the ability and the good fortune to furnish it and surround himself with elegant and beautiful things. Rare Persian rugs are upon the floors, striking water-colours and drawings decorate his walls, and the ruder needs of furniture are supplemented by interesting and quaint cabinets, tables and chairs, among the latter being one that belonged to, and was used by, Voltaire. Indeed, acquisitiveness for desirable personal estate must be not the least of Mr. Arnold Mitchell's intuitions. One frequently enough hears wonderful stories of people who win lottery prizes; of people who, when they buy a copper coffee-pot, discover it to be a sacramental chalice, or catch a fish to find a jewel in its stomach, but to sit *tête-à-tête* with one of these is a new and flattering experience. If one of *us* goes down the Mile End Road and buys a trifle, let us say a pair of brass candlesticks for half-a-crown, he may come home and discover them worth two shillings or three, he finds excitement to the extent of the sixpence one way or the other; but, when Mr. Arnold Mitchell betakes himself to the East End, he lays out his half-crown, it seems, when it will profit him to the tune of 480,000 per cent. This is a fact. Buying a dirt-crusted wooden box, Mr. Mitchell found it to be a handsome brass-bound oak chest, and finally that it was a historic treasure chest worth five or six hundred pounds.

Mr. Arnold Mitchell built him a house, or, as he terms it, "cottage," some years ago, on Grove Hill, Harrow, where now there is to be seen a long frontage of houses all identified in authorship with his own. Indeed, it is to this enterprise or astuteness on his part that the Architect attributes a great many of the opportunities that have fallen to him, and of which he has so happily availed himself.



GROVE HILL COTTAGE. MR. ARNOLD MITCHELL'S HOUSE AT HARROW.

Grove Hill Cottage, Mr. Arnold Mitchell's house, which is illustrated in this page, is of somewhat a quaint and unusual plan, or, to be exact, *section*. Mr. Mitchell takes pride in pointing out to the visitor that its eleven rooms are on nine different floors. The Architect elected to admit the exigencies of the site, and express them in his building, and however seriously the arrangement might be criticized in a mansion, it is certainly apt and picturesque in the cottage. As may be inferred from the above, the decline of the land



is steep; there is a drop of 13½ feet in level along the diagonal of the plan starting from the top front angle, and the Architect has accordingly arranged his staircase (without stair-well) in the centre, and planned the rooms to open off its many landings; there are no corridors. The house is, therefore, snug and compact. Mr. Arnold Mitchell has availed himself, in the scheme of decoration, of Messrs. Hayward's well-known wall papers and friezes, and the ornamental design is not confined to the reception rooms, but is considered in all the bedrooms, it being Mr. Mitchell's pleasure to have a separate colour scheme for each apartment of his house, and this scheme is elaborated throughout, even to the curtains, furniture and bed-hangings, in a very graceful and pleasing manner. To all this electric light, with coloured shades to match the tone of decoration, lends the aid of its charm, for even at Harrow an enthusiast may arrange for the light to be supplied.

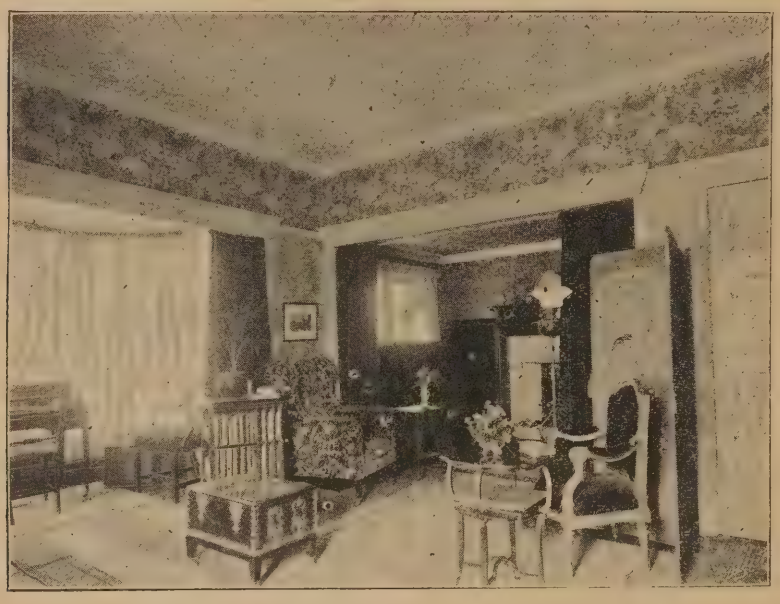
The drawing-room, the bay window of which is seen in the illustration, is planned with two recesses, one formed by the bay first mentioned, which serves as a boudoir, and the other in which the fireplace is set. Here the ceiling falls, and is coloured in rich, warm tones, and the nook is furnished with settles, and, with curtains drawn, to cut it off from the rest of the room, it forms an ideal snuggery for a winter evening.

But if Mr. Mitchell owes to this circumstance of having built his house in a manner and place which has enticed others to come and do likewise, he also recognises competitions among his stepping stones. He is a stickler for competition — "the young man's friend," says Mr. Mitchell. He will hear no word against them — none; if they are sometimes abused, yet they remain a great blessing to us all. But this mystery is not far to seek, for Mr. Arnold Mitchell himself numbers as many competitions to his hand as he does years to his life, and has been scrupulous in putting an average of one in every four to his credit. Mr. Mitchell, however, has never deigned to condescend to any competition when a qualified assessor was not appointed, and strongly deprecates the practice of Architects in doing so under any circumstances.

I thought, when I suggested to Mr. Arnold Mitchell that some account of his life would be of interest, that he would at once tell me that he was born of poor but honest parents, and brought up on oatmeal porridge, like the rest of us; but, instead, he told me directly that he was articled for three years to Mr. R. S. Wilkinson, of Furnival's Inn, and brought up on Doulton's Lambeth works. During these years the pupil attended closely to the office work, and besides studied in the Art Schools of evenings. It was not till his term was expired that he saw much of English traditional Architecture, and about this period he sought, as it were, to make up for lost time, and "measured up five Churches" at different dates. Mr. Arnold Mitchell holds that making measured drawings is the finest of all training for a young Architect, and would advise none to begin sketching seriously until they have served an apprenticeship to this method of chronicling Architectural effects. The next professional work Mr. Mitchell saw was in the office of Messrs. George and Peto, and after being employed there a year he was engaged as clerk of works, superintending the building of St. Luke's Church, Bermondsey, during which time he prepared a design for a "Municipal Mansion," which won for him the Soane medallion in 1885. Then there came a term of employment in the School Board Offices, where, no doubt, he obtained that intimate knowledge that has found success for him in the planning of Board Schools, for he has just completed the large school in Woodstock Road, Finsbury Park, which he won in competition. After this term of office routine he flew to the opposite extreme, and travelled; first for six months in Italy, and later for a similar period of time in France. Of this tour he regrets that he had not learned to draw before he started: "I wasted my time in Italy, learning to draw—not that I can draw *now*," Mr. Mitchell hastened to assure me, with an inkling that his work might have prejudiced me into that opinion. After a short time in a City office, "to see all sides of the profession," Mr. Mitchell became tenant of the rooms in Finsbury Circus, which he has since held as his office, and that was thirteen years ago.

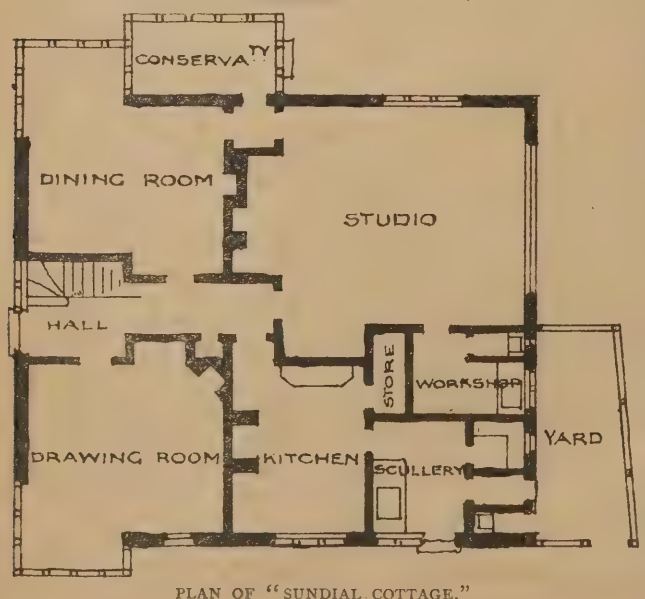
Mr. Arnold Mitchell prides himself in no predilections in the enjoyment of his profession, and that word "enjoyment" hits off the attitude in which he regards his work. To be able to design and execute as his taste and inclinations direct, to live and work without contentions, without unnecessary restrictions and limitations, to draw

about him in his pretty home the things that please his eye and fancy, and surround himself with a placid unconcern, free from all identification with one cult or another, with this party or the other, is the desire and realized ambition of this Architect. Mr. Mitchell holds that, while considering the client's needs in every detail, and working the plan to a complete solution of the requirements, an Architect should not consent to



DRAWING ROOM, GROVE HILL COTTAGE, HARROW.

have his design lopped and spoilt because a client will not see that his estimate of value for the house he requires is understated. Mr. Mitchell has always declined to work on any such understanding, and it is interesting to know that not only has he no cause to regret the position he has taken in such matter, but he has never found that it handicapped him in any substantial respect. To return, so thoroughly does this philosophic attitude of imperturbability belong to Mr. Mitchell that he was puzzled to tell me whether his taste lingered in preference with the Gothic or Classic Architectures, and finally had to give up my riddle. It was a thing he had never considered, he told me, or concerned himself to recognise in distinction. These things, in Mr. Mitchell's view, all help to rub the bloom off the plum of Architectural design, and I became at length so imbued with the placidity of his contemplative view, that I lost all interest in several fretting questions I had but an hour before run all agog to put to him, and strolled about the house, chatting with him over his pictures; so I find the questions—"Do you consider Architecture an Art or a profession?" and "Is marriage a failure?"—still standing unanswered in my note-book.



PLAN OF "SUNDIAL COTTAGE."

THE MODERN HOUSE.

By P. MORLEY HORDER.

I AM afraid modern Architecture has very little interest for the generality of men, and their admiration for old buildings does not go very far or to the extent of being interested in every effort for their preservation, and I am afraid it is a sentimental interest of past association rather than a knowledge of their intrinsic merit. Perhaps for some of us this admiration for all that is old is very genuine, but it has small influence on our surroundings and results in mere *dilettante* enthusiasm for old furniture and mere bric-a-brac, and in condemnation of everything that is not old instead of encouraging all efforts towards the production of modern work on the principles of the old we admire. Such thoughtless enthusiasm has often, too, gone far in the spoliation of the very object of over-admiration and a selfish desire to be possessed of any fragments of antiquity. A thing is not good just because it is old, neither is it beautiful, probably, apart from its place and setting. There is everything to be gained by intelligent study of the Arts of the past, in fact we can have no pretence to knowledge of beauty until we have carefully observed these and formed opinions about them, and if such a study goes no further than mere desire for reproduction of past forms it will only be proof of the superficial way we have approached the subject. Rightly understood, the old work will encourage a still greater interest in the improvement of modern work on the principles of the old, but suited to the particular needs of our own age. It is quite clear that no kind of general interest exists for modern Architecture, for the very status of the modern Architect seems a matter of considerable doubt, and small distinction is made between the Architect, the would-be designer and fashioner, and the builder who, under modern conditions, has become the mere executant. True, we know very little of the designers of the old buildings we admire, but a good many names have become familiar to us all in connection with their design. This indifference to the comparative merits of modern building and to the individuals who are shaping its style, must retard the production of good work generally, and the question naturally suggests itself as to whether we care as a people for the form and colour of our domestic and ecclesiastical buildings? Are we shocked at the promiscuousness, the lack of thought, the terrible sameness, the hideous forms and colours displayed by so many of our buildings? Have we never been pained by the ruthless destruction of beautiful country, and can we see with no regret the old towns we profess to admire, robbed of their simple dignity and of that something we choose to call the picturesque, without more than a protest—in silent inaction. Building on an extensive scale must perforce go on around the centres of so-called civilisation, and the estates contiguous to our great towns have necessarily to be dispersed and parcelled out into building plots, but need their spoliation be so unordered in plan and execution? Can we have no voice in the kind of house we would live in, or are we satisfied with what is now generally being built, the showy brick box of most of our suburbs? I must presume the brick residence in vogue pleases us because it is marketable, indeed, was built with a shrewd assumption as to its attractions. If we really admired the old and its essential virtue of simplicity, we could never acquiesce in such an assumption, we should at least have and circulate opinions that would in time influence and alter the conditions of building. But I refuse to believe that, speaking generally, we are quite blind to the



"SUNDIAL COTTAGE," NORTHWOOD. ARNOLD MITCHELL, ARCHITECT.

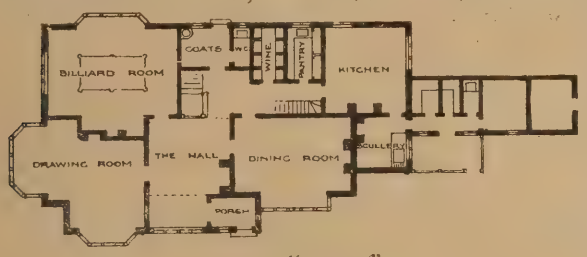
VULGARITY OF OUR STREETS,

notably much of our suburban Architecture and their showy formlessness. I am sure we are pained at the destruction of natural beauty entailed by the extensive and congested building operations of our day; but we have grown accustomed to the inevitable building and its particular form gives no fresh sense of annoyance. Those of us who really dislike that modern invention—the villa—fail to realise that there is no reason with care and thought why a naturally beautiful estate should not be built over without destruction of its identity, without robbing it of every green thing. Even an estate on which the houses have to be arranged to make good use of every available bit of ground, can be made presentable by careful arrangement, and the occasional interruption of the almost necessary monotony. In laying out a modern estate, very little care or arrangement is exercised. After every tree has been rooted up, roads are cut at all

angles, and the land is parcelled out in every imaginable shape and form. A bird's-eye view would shew what a jumbled disordered medley of lines and angles are resorted to. If the estate happens to present any opportunities for variety, and the ground is anything but level, the disasters are only increased. The conditions of a hill are never even recognised, and the buildings appear to be holding each other up in a manner almost humorous. I often think that the greatest work an Architect could turn his thought and ingenuity to in these days would be that of making a building estate really beautiful, at the same time meeting all the demands of modern speculation and stinted means. The aggregate building material of this country is in the hands of men who care nothing for beauty, who have no conscience in the matter of the value of concealed workmanship, whose only aim is to catch the eye by variety of manufactured and coloured material. The houses that present the newest varieties of these repeated ornaments are the most readily let, and so a continual effort is sustained to produce fresh forms by the quickest processes. No human skill or ingenuity is needed in the manufacture of these ornamental accessories, and so at the same time that the taste of the country is being depraved by the currency that is being given to ugliness, human beings are engaging themselves in worthless and degrading toil. This love of the ornate and the formless is being carried into every department, both within and without our houses, until relief can only be found in the absolutely plain in every shape and form. There can be no question that the mere repetition of anything is in itself bad, if only from the point of view of the worker. Apart from such ethical considerations, you may probably say this is my taste, even to the extent of saying I prefer the showy and am not fond of simple things. Do we really consider seriously the details of our material surroundings? Have we taken the trouble to form an opinion as to the intrinsic value of our buildings and the decorative objects wherewith we surround our lives? Because before we have done this we cannot have any claim to taste, and we must be led astray by every wave of fashion and every new craze. An object, I care not what it is, from a house to a spoon, cannot be enriched with ornament until it has some real form of beauty, and the enrichment must only be an added emphasis to its actual shapeliness. In so far as a mere ornateness covers up or destroys the definite lines of the object, it is bad and a mere superfluity. Real taste surely should have distinct elements of what may be called style, which again is the application of accepted forms (by the eye after long usage and thought), always subject of course to new and individual interpretation from age to age. If you will consider, for instance, the collected treasures of our Art Galleries, you will see how the elements of style have always been carried on in this way and freshly interpreted. I certainly am no sympathiser with the mere purist in style, and believe in absolute freedom in all such matters; neither do I share that bigoted admiration of all that is old, and find pleasure only in mere repetitions of old forms. But the study of the past is more than ever necessary to-day when we have forgotten so often the lessons they teach us of beauty of construction, and the simple ingenuity of means to an end. I never remember an old building (and when I speak of an old building it must be understood I include everything up to the middle of the eighteenth century) that did not emphasize rather than destroy natural beauty.



"BOWLS," GREAT STANMORE. ARNOLD MITCHELL, ARCHITECT.



PLAN OF "BOWLS."

SITUATION AND APPROACH

always seem the first considerations, and no lines were ever broken, no ornaments added for the mere sake of variety. I know that the general theory is that age has given most of the beauty they now possess. Let us admit that age may have done something, but it is a consideration which largely concerns the colour of materials used, and in most cases these could never have been originally anything but of the quietest nature. I would like to emphatically say that there are numbers of modern buildings that in my opinion are as good (and better as displaying more real powers of design under more difficult conditions) as the best examples of the old. At the moment, however, we are considering not so much



EAST ELEVATION

STROUD GREEN BOARD SCHOOLS. ARNOLD MITCHELL AND ALFRED BUTLER, JOINT ARCHITECTS.

the isolated examples of modern Architecture as the aggregate and uncontrolled building of the time. Already I think we may see what time is likely to do with these, for of all cheerless spectacles I think it is a typical modern villa when the smoke of our towns has toned its pristine brightness into dingy depression. After a few years the faulty construction, the badly built brickwork, the poor unseasoned wood, the insufficient paintwork (which somehow the landlord neglects when it is no longer necessary to captivate with its glossiness), and the general appearance of past glory is depressing to a degree. To think that so often these places are bought with no conception of their early blight fills one with amazement. You sometimes see ivy struggling with the exigencies of a modern house, bur it so often gets interrupted by some uncongenial ornament that its progress is slow, which is indeed a pity, for it might give a new lease of life and help the brickwork in its

Struggle with Time.

Perhaps it is as well I should not too definitely state my own particular ideas in these matters, although I feel that photographs of buildings are always misleading, as they fail to give the colour and relative situation and scale of a building, which is of vital importance. And, indeed, it is useless really to compare photographs or other pictures with actual buildings, because none but those who are familiar with the evolution of Architectural design can form a correct idea of the appearance of a real building from a pictorial representation of it. My purpose is rather, if possible, to raise the whole question of Architectural taste, and to assert that it is a matter of knowledge, of well-trained judgment and clear æsthetic perception; to remind you that, whether you suspect it or not, there are principles underlying all good work, that you cannot see any improvement should you even look for it as necessary to your well being, until you take the trouble to study and find out

The Best Work that is being Done

and praise it. Ask yourselves seriously if the outward and inward form of our houses please you, and if they are all that you could wish. It may be an idle question for you now, so far as any practical improvement is concerned, but at least you can develop opinions that will influence others and form a consensus of effort towards improvement. At present there is only one conclusion, unless the best work of the past is worthless, that Architecture as an Art applicable to us all has ceased to exist, and only because we, as a people, will not have opinions, will not primarily use our eyes and form judgments as to the comparative value of the work that goes on around us. If you grow to hate the cheap form of modern building, and although necessity compels most of us to live among them, do not fail to say so and that loudly. Encourage by praise all that pleases, and the hand of the individual who fashioned it. This is the only chance of any improvement in the Architecture of our houses, and for the day to come when the poorest of us can live in what is sound, although it may be

Simple to Plainness.

It is a dreadful consideration that Architecture and when I speak of Architecture I include all the complementary crafts) is so controlled at a time when the opportunities for real beauty are so near at hand, when Artists and craftsmen of such originality are so numerous, but their work so seldom seen. I know there is a widespread notion that the employment of individuals in matters of Architecture and craftsmanship is expensive, and in a certain sense and as compared with the ready-made article their productions certainly are. Considerations of durability and the use of fewer materials to produce better effects weigh heavily against such ideas, to say nothing of the pleasure derived from any kind of individual production. Personally, I have a feeling that the Architect and craftsman have not yet done their duty, and have yet to shew practically they can compete, although at a considerable risk and loss to themselves, with the mere commercial influence of the building world; that they must supplement their outcry against the destruction of beauty and the want of taste generally, at some sacrifice to themselves. They must shew a

Disinterested Ambition

to produce beautiful things, and they must even make certain concessions, that a small improvement may be derived. I have spoken of the exceptional opportunities of the times, but the very variety of accessible material makes the danger and difficulty of selection most difficult, and the need for guidance imperative. The reaction from the dullness of the early part of this century, in matters of Art, was so sudden, and followed so rapidly by the manufacture of such varieties of materials, that there was no time for observation or comparison of the relative value of the production. No standards were set up, and the most dreadful combinations of forms and colours have by general usage become familiar. The most grotesque shapes, the most inharmonious forms, are honestly now thought to be beautiful and becoming, if only they are in vogue. Absolute utilitarianism, an utter absence of all attempts at Architectural effect, would be infinitely better than the blundering, ignorant productions that are neither good Architecture nor good engineering. I know it is easy to say disagreeable things about our every-day Architecture, and quite another to make their truth manifest. But, as a test, I would have you make a few comparisons, say between half-a-dozen old houses and a similar number taken at random from a

New Modern Street.

If you are incapable of seeing the superiority of the good in such a comparison you would probably be as satisfied with a coloured chromo as an etching of Rembrandt's on your walls. If, too, you could find sufficient interest to discover the buildings that are considered the best examples of modern Architecture, and compare them with others of a similar size around them, and in this way make up your mind a little on the subject. This is the the only way in which popular education in this direction can at all be advanced. The attitude of journalism towards the subject of Architecture is largely responsible for the want of interest. You would think that the opening of some large and important building would be a sufficient excuse for the employment of some competent critic to discuss its merits, but how seldom is there any but a passing reference to the Architectural value of the building. We have Art, Musical, and Literary critics on all our papers, and from them largely our opinions are determined. Many of the books and music that are so admired become forgotten very soon, but our buildings remain a permanent record of our good or bad taste. Surely it would be quite possible for an editor to employ a competent critic to discuss intelligently the merits of at least our important buildings; as it is, he contents himself with some passing comment at the most, which is worse than useless. Most of our papers, it is true, concern themselves with what they call "Art in the Home," and women mostly are employed to direct the public taste in these matters. An immense amount of harm has been done in the name of Art by means of these agencies, so to speak, for the propagation of Art crazes. For you cannot decorate your house unless you understand its Architecture, and, if it be bad, no amount of applied decoration will conceal it. In most cases the advice given is most unprincipled, the object being to exploit the goods of a particular firm, and with no reference to the conditions of the particular house to be decorated. We may not be responsible for the exterior of our houses, but at least the interior will be evidence of our individuality. As a rule, however, I am afraid the extravagances of the outside are emphasized within, and comfort seems to be considered akin to mere multiplicity, and the beauty of homeliness connected with mere Art fabrics. I am afraid women have a good deal to answer for in the matter of decoration with their insatiability for mere knick-knacks. To what a pass have we come when under the heading "Art in the Home" cream colour aspires to be carved ivory, and mural decorations are found in tambourines, dried grasses, drain-pipes, and milking-stools. I have often tried in vain to shake the faith of a woman for a drawing-room thus bedizened, but the picture of an old panelled parlour hung with black oval and coloured engravings seemed cold and cheerless in comparison with the crowded aspect of a modern drawing-room. I could never understand why people are so afraid of a plain surface, why they must needs cover every available space on their walls, and every nook and corner of their floor. Do people think about the different objects they hang on their walls, the ornaments about their room? You can buy now-a-days, for the price of a few manufactured goods, reproductions of one of the Art treasures of the world. Instead of availing ourselves of such opportunities we buy pictures that I am sure can make no appeal to us, but are merely useful as filling a blank on the wall. As I have said, we can practically do what we like with the interior of our houses, and they might become quite distinct from the sameness and monotony outside. It is curious how we illustrate the faultiness of the Architecture of our houses without hardly realising it. Curtains are always drawn over a portion of the window, which is always really larger than absolutely necessary for light and air, and, indeed, the great condemnation of the

Modern Window

is that it cannot exist in the daylight without the curtain, for the light is in such excess that everything appears garish until covered by drapery. But after all a room is four square, and, if we will only be quite simple, very beautiful effects can be



CARETAKER'S COTTAGE, "DUCKER," FOR THE GOVERNORS OF HARROW SCHOOL.
ARNOLD MITCHELL, ARCHITECT.

obtained without sacrificing comfort, and with very little outlay. The whole effect of a room must necessarily be determined by what we find on the walls, and this must be controlled by the size and ultimate conditions. If we have pictures that interest us it is obviously absurd to put a large-pattern paper that will confuse their meaning and effect; on the other hand, a well-designed paper is a sufficient decoration in itself, and the wall need not be described as bare. If the chimney-piece is ugly it is useless to drape it and call additional attention to it. Instead of spending money on useless superfluities, invest it in sound, beautiful, and necessary furniture and floor coverings, for cheapness in these matters robs the house of its style, and, in the long run, is expensive. All the most beautiful rooms depend entirely for their merit on this right clothing of the four walls, and on just the necessary furniture proportionate to the size of the room. Any other mere ornaments are unnecessary, and will spoil the dignity and comfort of the room, unless they have some unique interest or association of their own. "In a well-painted picture," says Edward Carpenter, in a recent article, "there is'nt a grain of paint which is mere material. All is expression, and yet life is a greater Art than painting pictures. Modern civilized folk are like people sitting helplessly in the midst of heaps of paint cans and brushes and ever accumulating more; but when they are going to produce anything lovely or worth looking at in their own lives and surroundings, Heaven only knows!" In this sense simplification is the first letter of the alphabet of the Art of Life. "People," he goes on, "being extremely muddle-headed about life, are under a fixed impression that the more they can acquire and accumulate in any department, the better off they will be and the better times they will have, consequently when they walk down the street and see nice things in the shop windows, instead of leaving them there, if they have any



EAST END OF LAON CATHEDRAL. DRAWN BY ARNOLD MITCHELL.

money in their pockets they buy them and put them on their backs or into their mouths, or in their rooms, and round their walls; and then, after a time, finding the result not very satisfactory, they think they have not bought the right thing, and so go out again and buy some more. And they go on doing this in a blind habitual way until they can hardly move about or enjoy themselves for the very multitude of their possessions, impediments and duties!" The method of Thoreau towards the simplification of life might be beneficial in its effect on some of our houses. Thoreau had an ornament on his shelf, but, finding it wanted dusting every day, and having to do the dusting himself, he ultimately came to the conclusion that it was not worth the trouble, and threw the ornament out of the window. Are half the things we continually have to dust in our rooms worth the trouble; do they add to our comfort or the sum of effect? I wish I could have written something more practicable, but, as I have said, I think in the general confusion of ideas about Art it is not a time to be too definite, and all I desire is to stimulate an intelligent interest in the materials of our surroundings. "Little trinkets," said Wren to his own day, "are in great vogue, but building ought certainly to have the attributes of the 'eternal,' and therefore the only thing incapable of new fashions."

KEYSTONES.

WE hear that the contract for special steel casements and opening gear, at the Royal Naval Engineering College, Keyham, has been placed in the hands of Messrs. E. Farrar & Co., London.

THE Local Government Board has sanctioned the borrowing by the Coventry Council of the sum of £10,000 for the purposes of the erection of a smallpox hospital and the extension of the City (Infectious Diseases) Hospital.

MISS GREGSON has presented to Liverpool a handsome museum in Garmoyle Road, Wavertree, in memory of her father and mother. The building is to be taken over and maintained by the corporation.

CONSIDERABLE damage was caused last week by a fire in the Wesleyan Chapel, Patrick Street, Cork. And it is estimated that at least £2,000 will be required to put the structure into proper repair.

THE London Electric Supply Corporation has decided to apply to the Board of Trade for power to extend their area of supply to the south of Westminster Bridge, Parliament Square, and Victoria Street. The Fulham Vestry has also given notice that it intends applying to the Board for powers to supply its district.

AN underground passage was accidentally discovered recently under a house in Montmartre. The passage, which is about six feet high and somewhat more in width, evidently runs for a considerable distance, but so far only 250 yards have been explored. It is strewn with human bones, and is believed to have been used as the sepulchre of the famous convent.

THE scheme for the City of London Swimming Bath is being steadily proceeded with. Plans for the proposed site on the river at Blackfriars are in course of preparation, and it is hoped that they will be ready in time for presentation next month to the Conservancy. Resolutions in favour of a swimming bath in the City are, we hear, likely to be submitted at several of the wardmotes on St. Thomas's Day.

THE DUKE OF DEVONSHIRE has sold to the Chiswick Urban District Council four acres of land for the small sum of £1,200, for the purpose of extending the local cemetery. The land is very valuable. The Duke has also undertaken to make a road along two sides of the ground, at a cost of £2,000, so that he will lose £800 by the transaction.

A NEW coroner's court erected by the County Council in St. George's Churchyard, Camberwell, has been formally opened by Sir George D. Harris, L.C.C. The court is handsome and commodious, 36 feet by 21 feet, with panelling and furniture of oak. The accommodation includes a private room for the coroner, and waiting rooms for jurymen and witnesses. The work has been carried out by the Works Committee of the County Council.

ECCLESIOLOGICAL NOTES FROM NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

SUCH typical Westphalian Churches as those of Münster, Osnabrück, Soëst, Vaderborn, and Herford, having been dwelt upon at some length in an earlier number of this series of papers, little further allusion need be made to a district of Germany whose ecclesiastical buildings, although designed on a vast and impressive scale, and enshrining many curious and beautiful specimens of mediæval furniture, are neither so good nor so satisfactory, in a constructional point of view, as those of the Rhine provinces. "As a general rule," remarks one of our most judicious Architectural critics, "it may be asserted, the Churches of Westphalia are singularly devoid of taste and good design." "They are extremely numerous, and many of them sufficiently large for Architectural effect; but in the earlier or Round Gothic period, they betray a clumsiness which is very unpleasing,* and in the age of the Pointed Gothic, their style is wire-drawn and attenuated to a degree almost worse than the heaviness of that which preceded it.† The fact, indeed, is only too apparent, that the Northern Germans were not an Artistic people, for neither in Westphalia, nor in any of the countries between it and the Baltic,‡ do we find any Churches displaying that beauty of style or constructive appropriateness, which characterizes those of Cologne or the cities to the southward of that town." The use of the round arch was continued in Westphalia long into the 13th century, for we find it in conjunction with pointed work in the Cathedral at Münster, where a clerestory of Romanesque triplets surmounts a very peculiar pointed arcade. This arcade is clearly

A WESTPHALIAN LOCALISM.

We meet with one of exactly the same type only, somewhat loftier, and without the clerestory, in St. John's at Osnabrück. Its peculiarity consists in the arches which have perfectly plain soffits springing from pilasters without the intervention of a capital. Throughout each of these interiors, the isolated or clustered column is curiously absent. Such large wall surfaces as everywhere meet the eye in Münster Cathedral—a building distinguished for breadth and length rather than height—have been taken advantage of by the fresco-painter. Almost every inch of space in the Church glows with mural colorisation, the frescoes terminating, in the central vaulting cell of the apse with a "majesty" which imparts an air of dignity an grandeur to the whole. Without these paintings, the Münster Cathedral—deprived as it has been, only within the last few years, of a most beautiful Late Gothic Lettner or Rood screen, would appear cold and uninteresting. Advancing in a south-easterly direction, a manifest improvement is discernible in the Architecture of Germany, be it Romanesque, or Complete Gothic, the Churches of Hildesheim, Goslar, Halberstadt, Naumburg and Erfurt, being among the most refined in this part of Europe.

To the student of Architecture, whether in its ecclesiastical, civil, or domestic aspect, Hildesheim is *embarras de richesses*. The acutely gabled, and cunningly carbed fronts of the timbered houses which line its almost every street, present a bewilderingly varied selection of subjects for the pencil. But as it is with the

ECCLESIOLOGICAL TREASURES OF HILDESHEIM

that our paper is immediately concerned, bare mention can only be made of its domestic Architecture. Although the well-meant, but sadly mistaken piety of the last century has transformed the solemn Romanesque Cathedral of Bishop Bernward into a tawdry Italian *rococo* building, it retains several noble evidences of the æsthetic tastes of that prelate who presided over the see from 993 to 1022. To him are due the lofty bronze doors, rich in wrought subjects, and admitting to the body of the Cathedral from its vestibule at the west end. Likewise the great Corona Lucis,* suspended in the nave, which, 22 feet in circumference, was intended by Bernward to image the heavenly Jerusalem. Both are elaborate and costly works of Art, and, with others, have made the episcopal city of this prelate a museum of his taste and skill. The great rood, which effectually debars those seated in the nave from seeing what is going on in the choir, is one of the few screens of this kind remaining in the Roman Catholic Cathedrals of Germany.

A costly work of the Early Renaissance, it will come in for a more detailed notice in that part of our paper devoted to a brief survey of German ecclesiastical furniture and decoration. The original design of the Cathedral of Hildesheim can be well seen in the noble basilican Churches of St. Godehard and St. Michael, the former held by the Catholics, the latter by the Protestants, and both restored and richly adorned with decoration, mural and vitræous, since the revival of German ecclesiastical Art. The arrangement of these two Churches is very similar, the great beauty of each residing in the elegant proportions and details of their nave arcades. The capitals of the cylindrical piers are evidently copied from the rich Byzantine-Romanesque work of the south; the carving is very varied, and each capital is in itself a study; the arches are simple round ones, and every third pillar of the arcade is replaced by a square pier, an arrangement giving an air of repose and stability to the whole which is eminently satisfactory. Some slight differences, however, in the construction of these two great Hildesheim basilicas must be pointed out. Both are cruciform in plan, with a central tower and spire at the intersection, beyond which is an apsidal eastern limb; and in the nave of each we have a blank wall space between the arcade and the simple clerestory of round-headed windows. In St. Godehard's, owing to the greater altitude of the nave piers, this wall space is much reduced, and glows as does every part of that Church, the roof excepted, with frescoed ornamentation of the richest and most tasteful character. In St. Michael's, this intervening space is much loftier, but it has not as yet received its complement of polychrome. St. Michael's, however, possesses what St. Godehard's does not, *i.e.*, the splendid painted ceiling which furnished the late Mr. L'Estrange with a model for the one at Ely. In both Churches the ceilings are flat; indeed this seems to have been most generally the case with German basilicas of the 10th and 11th centuries. The Abbey Church at Gernrode, and the Liebfrau-Kirche at Halberstadt, in the same district, present us with most interesting examples of

FLAT-ROOFED CHURCHES.

In St. Michael's at Hildesheim, the flat roof is carried right on into the apse, as at Peterboro'. In St. Godehard's, the tower and eastern limb roofs are also flat, but in the apse itself it is domical. Two tiers of round-headed windows, with a very narrow piece of wall intervening between the tiers, light St. Michael's apse, in whose lowest stage is a circumambient aisle not communicating, however, with the body of the choir, the general effect being much heavier than

* St. Patroclus at Soëst, is evidently referred to here. Despite its grandeur of dimension, St. Patroclus is a very plain, almost rude Church, its Romanesque greatly resembling that of the eastern part of the nave at St. Alban's. Doubtless its Architect depended upon colour for ornament, but as this had been almost entirely effaced at the time the above criticism was penned, the building, in common with others which had shared the same fate, *i.e.*, white-washing, naturally presented a somewhat bare and uninviting appearance. Since the Gothic revival in Germany, St. Patroclus has been extensively frescoed, and the same process is now in active operation in the great Transitional Cathedral of Osnabrück, so that the once heavy air of both these Churches has been materially lightened.

† Reference is clearly made here to such great Churches as St. Lambert at Münster, and to St. Mary-in-Meadows at Soëst, with their immense length of window opening. Scattered about the Westphalian Churches, there is much beautiful detail in such adjuncts as the Western portal of St. Patroclus at Soëst, in the Transept door of St. Peter in the same town (about to fall, it is to be feared, into the hands of the "restorer"), in the Paradise or South portal of Münster Cathedral, and in the small doorway leading from the cloister into the nave of the great Church at Minden. Much of the Westphalian window tracery is of great beauty. As specimens of the "plate tracerie" type, the great rose windows lighting the south-west transept of Münster Cathedral deserve especial mention; they resemble the "Dean's Eye" at Lincoln, very considerably. The Soëst Churches display much elegant window tracery of the various epochs in their apses; and there is some charming 14th-century work of the same kind, in the three small windows lighting the choir aisles of Osnabrück Cathedral. The Minden windows are famous, and the clusters of shafts supporting the arches which devide the nave of this Church from its aisles are noble specimens of 13th century work.

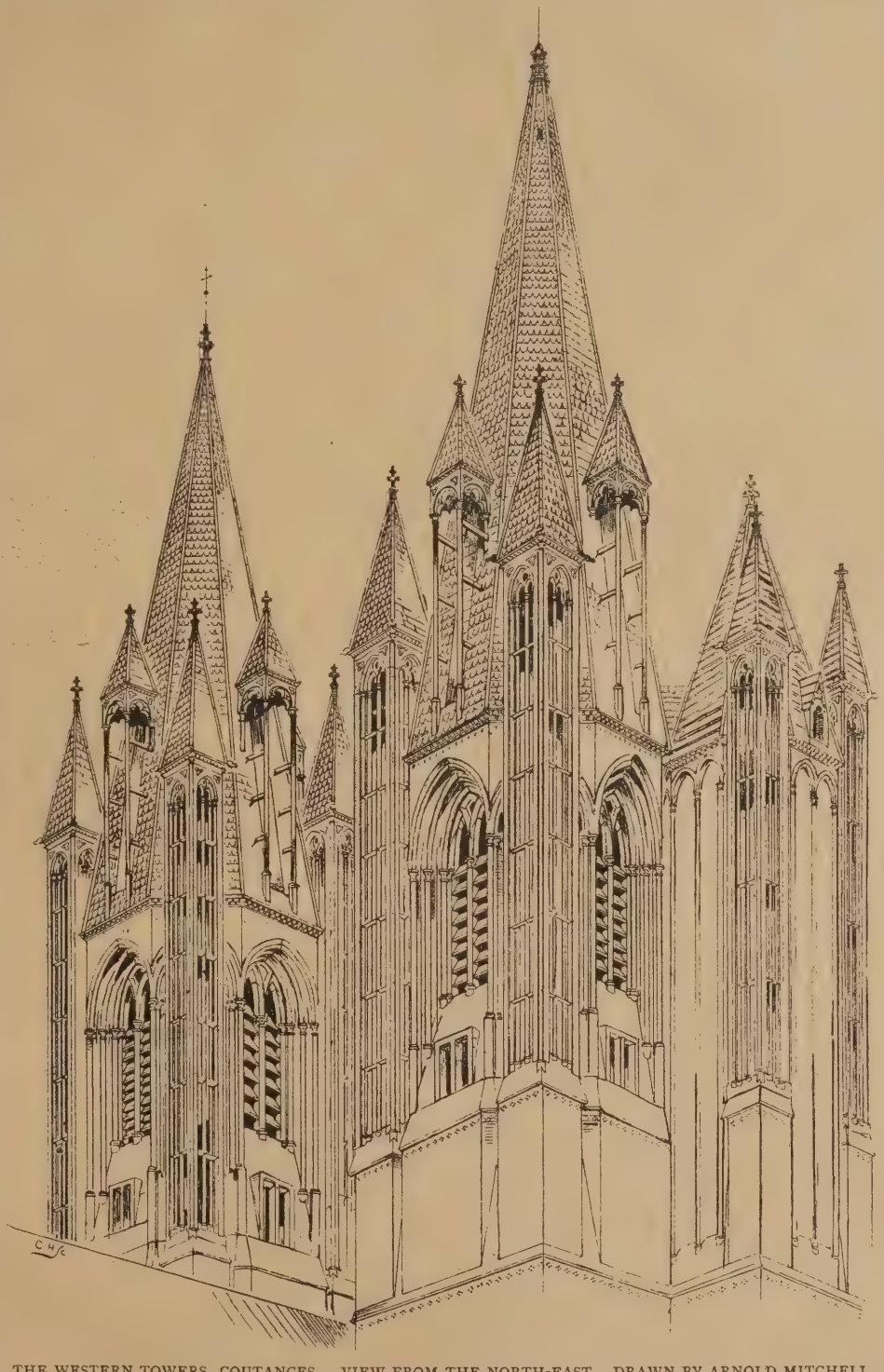
‡ The great brick Churches of that part of Germany bordering on the Baltic, *i.e.*, Lübeck, Danizig, Stralsund, Frauenburg, and Brandenburg, although noteworthy specimens of construction in that material, are notwithstanding their magnificent proportions and grandeur of outline, lamentably defective when examined in detail.

* A copy of this Corona hangs in the Architectural Department of the South Kensington Museum.

at St. Godehard's, where the aisle behind the altar opens into the choir by a series of bays similar to those in the nave. Filling up the space between these arcades and the round-headed clerestory windows in St. Godehard's, is a frieze of saints in fresco. There the transepts are open to the choir, whereas at St. Michael's they are shut off from it by screens, which, however, are no detriment, but, on the contrary, serve to impart an air of additional length to the building's interior, viewed from the west door. In each instance we have four very simple arches at the great crossing, relieved, at St. Godehard's, by others consisting of a simple roll moulding, and springing from a slender hook shaft. This same Church possesses one of those tall screen-like western façades, which, rising considerably above the roof-line and flanked by pinnacled turrets, is of a type frequently occurring in this and other parts of Germany. Goslar, a most interesting old town, nestling beneath the Hartz Mountains, on the line from Hildesheim to Halberstadt, has three Churches of the Romanesque and early-pointed epochs, each of which is equipped with one of these screen façades, forming from the railway, or in other views of the town, a strange but highly impressive group. At least half a day should be devoted by the non-sketching ecclesiologist to this old Saxon town. The writer, unfortunately, had not included it in his programme, and, therefore, was only enabled to pay it a hurried visit between the trains. To make matters worse, it was pouring with rain the whole hour and a half, so that his ecclesiological researches at Goslar were conducted under great disadvantages. We meet with a façade of this kind* at Halberstadt, in the Liebfrau Kirche there. In this instance, the portion which appears above the ridge of the nave roof is considerably lightened by some open arcade work; a pair of massive square turrets, gabled on each side and crowned by short stone spires of the Rhenish type, flank it. The western façade of Gernrode, of the once magnificent Abbey Church of Corvey in Westphalia, and of St. Martin at Brunswick, are all Romanesque and good specimens of this treatment; while among pointed examples, those which occur most readily to the memory are St. Catherine at Brunswick, and St. Martin at Halberstadt, these two last-named examples affording a singular proof of how hard old Romanesque traditions died in this part of Europe. In the pointed examples, the façade takes a gabled form. Rising as it does very considerably above the apex of the nave roof, it seems only to have been so raised to impart an air of greater dignity to the pile, viewed from the west.

AT HALBERSTADT

the student will find himself in the region of much good complete Gothic work, chiefly of the late 14th and earlier part of the 15th centuries, good, that is to say, for Germany; for it may be as well to remind him that when the people of that country suddenly abandoned that noble transitional style, which they had brought to such a pitch of perfection—they adopted one which they never thoroughly understood, and which fell far short of the perfection it attained to in France and England. From the absence of a pure first pointed style, free from Romanesque influence, as illustrated in the choir of Worcester Cathedral, to take a solitary example, the Germans have less natural growth to show in their Architecture than we have. Instead, therefore, of our beautiful gradations from Romanesque to Perpendicular, German Architecture presents a series of gaps or breaks in the chain difficult to account for, except on the assumption that they could not abandon their national style. Such breaks render the assignment of dates to German Churches somewhat conjectural, though at the same time their study is an exceedingly interesting and absorbing one. The clerestoried Dom and the two great Churches of the Dominicans and Franciscans, at Erfurt, come to the student as a welcome relief after the monotony of the Westphalian "hall" type of Middle and Late Complete Gothic, though the "hall" Church on a better proportional scale is met with in those cities. The Dom at Halberstadt is unquestionably one of the most satisfactory buildings of the Complete Gothic period that Germany possesses, and although it would stand inside the mighty Cathedral of Cologne, leaving plenty of room to spare, it is the more pleasing building of the two, from its greater sobriety and elegance of proportion. The western façade with its flanking steeples, is a rare and beautiful specimen of First Pointed work; the spires crossing the gabled towers are very similar in outline to those of the Marien-Kirche at Lübeck; truly elegant are their belfry stages, with long windows of three trefoil-headed lights, each beneath an unpierced tympanum, a type of window opening employed also in the lower walk of the cloisters.



THE WESTERN TOWERS, COUTANCES. VIEW FROM THE NORTH-EAST. DRAWN BY ARNOLD MITCHELL.

* It is not improbable that Mr. Butterfield, when designing the west front of St. Augustine's, Queen's Gate, had either these German screen façades in his mind, or those extraordinary rectangular turret-flanked belfries which one encounters in the Haute Garonne district of the South of France near Toulouse, at Montgiscard, Villefranche, and Villenouvelle.

A FORMAL transfer has been made of the Churchyard of St. James, Pentonville, to the Vicar and Churchwardens of the parish of Clerkenwell for the purpose of being laid out as a public recreation ground. Amongst the graves in this burial ground is that of Dibdin, the famous song writer, and of Grimaldi, the clown, and it has been suggested that after Lord Meath and the Public Gardens Associations have assisted the parish in laying out and furnishing the grounds there shall be a public subscription for memorial fountains to these two men.

AN Electrical and Engineering Exhibition is to be opened, in February next, at Newcastle-on-Tyne, to commemorate the sixtieth year of the Queen's reign. It is proposed to illustrate the advances in engineering made since 1837.

THE Bishop of Marlborough has laid the foundation stone of the new Parish Church of St. Gabriel, Willesden, which is to be rebuilt to replace the old iron building that has been used for some years past. The new Church will cost a little over £7,000.

As the result of a petition from the inhabitants of Islington, the Cattle Markets Committee recommends, in a report just issued, that the vacant land adjoining the Metropolitan Market, at Islington, should be offered to the Islington Vestry for the sum of £16,000. The original amount asked for, under a valuation, was £24,000.

AN IDEAL ARCHITECT:—ARTIST, CONSTRUCTOR, ENGINEER.*

(*Concluded.*)

COME to still more modern times, and let us see whether the Architects of the present day are also capable of engineering feats. During a recent visit to America, I had an opportunity of seeing the leviathan buildings which have made Chicago so famous, and I had the advantage of going over, with the Architect, one of the largest in course of construction. I was told that the foundations of Chicago, possibly on account of its proximity to Lake Michigan, were notoriously bad, wet, and shifty, and presented great difficulties (which may fairly be described as engineering ones) to be overcome. Nevertheless, the American Architects, nothing daunted, have managed to erect the highest inhabited buildings in the world on this most unsound foundation; and I must say, although I looked about me with considerable interest, I did not see evidence of settlements having taken place, although the weight of these buildings must have been something enormous. Some of them are of 20 stories, rising to a height considerably greater than the spire of St. Mary's Cathedral in this town, which is 220 feet; and whilst I was there it was projected to erect a building of 34 stories, which would probably be 400 feet high. The buildings are carried on an ingenious foundation or platform of light ironwork and concrete. Each story is a self-supporting structure of ironwork, the stone facing being merely attached to it, the whole presenting an exhibition of engineering skill. Many other examples may be cited where Architects have shown the highest engineering skill in connection with their buildings, and I venture to say our "Ideal Architect" has proved that he is also an Engineer. As distinct from this, an Architect must also be a "Constructor." He must have the most thorough and complete acquaintance with all building materials, and how to put them together. He must understand thoroughly the details of each trade that is required to make up a building. If, in addition to being able to tell a workman that he is doing his work wrongly, he can also *show* him how it ought to be done, then he is indeed an "Ideal Architect." There are Architects who can do this. A practical acquaintance with the trades, more especially the carpenter's, is invaluable. The Architect in whose office I was brought up, thought a great deal of this, and an occasional turn at the bench was part of the curriculum of his pupils. Without such knowledge we cannot hope to be "Ideal." The men who designed the great wooden roofs of Westminster Hall, and of the fine old Parish Churches, the designers of the beautiful fan vaulting with its pendentives, of Henry VII. Chapel, and King's College, Cambridge, of the great stone-vaulted Churches of Spain and Southern France, with their clear spans of some 70 feet, and the men who put up such domes as St. Peter's in Rome, and St. Paul's in London, were all great constructors. The mere contemplation of these inspires to great things, and encourages us in going through the drudgery of acquiring practical knowledge which makes such things possible. Lastly, perhaps it would have been more correct to have said firstly, the Ideal Architect must be an Artist—must be full of Art. By this I do not mean to say that he should be able to paint a picture, or model a statue, but he must have a thorough knowledge, and he must be a judge of all the Arts that go to make up his building, clothing and adorning it in robes of beauty, from the hammered Art of the blacksmith to the gorgeous mosaics that fill the pendentives of his domes, and give colour and life to his walls. I know no more important function of the Architect than the determining of the size and scale of the figures that fill the stained windows or adorn the walls in frescoes or statuary. It is essentially the work of the Architect, and should always be left in his hands. The Artist who paints his pictures in glass or otherwise, the sculptor who has to produce the statuary, are not always the best judges of the proportion these figures should bear towards the building. We are all human, and there is a natural tendency to give undue prominence to our own—sometimes with lamentable results. I know no more striking illustration of this than can be seen in the Great Basilica of St. Peter's, at Rome. The elder PUGIN, who was not only a great Architect, but also a great Art critic, always spoke of it as the "Great Failure," perhaps for this reason. Immediately on entering the Church you take holy water out of a stoup held by an angelic cherub, in marble, if I remember correctly, some 9 or 10 feet high. The visitor is naturally overwhelmed at once, not by the grand dimensions of the Church, but of the cherub, which is out of all proportion with everything; nor is this first impression of disappointment dissipated until, leaving as it were the Church behind, he stands under Michael Angelo's matchless dome, lifting its great height into heaven itself, glowing in its mosaic enrichments of admirably proportioned figures. If the cherub had been where these mosaics were, it would have been about the right size. There have always been, and there are amongst us now, eminent Architects who can draw the cartoons for stained glass and decorations, the details of carvings, hammered iron work, and the Artistic furniture of their own buildings. No doubt this Artistic gift is not given to all in equal degree—but to all is given, more or less, a certain Artistic perception—a knowledge, as it were, of good and evil in Art; and it is this gift, which it is natural to suppose is possessed in a marked degree by those who dedicate themselves to Architecture, which every Architect is bound to develop and encourage in every possible way, and in no better way than by the reverent study of the works of the great men who have gone before us—nay, for the matter of that, by the study of the works of the men of the present day (some of them most beautiful and worthy of study) which spring up around us in all our great cities, and from which lessons are to be learnt as readily as from the works of the middle ages. Therefore, every Architect should be able at least to sketch and control the decorations and adornments of his own buildings. The success of every building depends more or less on the way these are carried out. Where they have been carefully supervised, there is that indefinable sense of completion which gives such satisfaction. More especially is this so in regard to carving. It is not wise to turn a carver, however able, loose into a building, with a general direction that it is to be done in such and such a style. All important carving should be modelled in clay under the direction of the Architect, who should be able, if need be, to take up the tool or use his hands to shape it to his wish. Modelling in clay is both an easy and delightful amusement. There is still one other little thing an Architect must be. He must be an eminently just man. Between client and contractor he occupies a very delicate position, and he is required to hold the scales of justice between the two with the greatest nicety. He may have a client who expects too much, or he may have a contractor who is disposed to give too little. This involves intricate and delicate questions. It is a subject that has been ably dealt with before the Institute of British Architects, and I do not propose, in this paper, to say more than, when such questions arise, which I am pleased to think are not very common, if we are guided by the conscientious conviction of what we think just, irrespective of all other consideration, we shall be right, and may rest satisfied. One word more before I finish. Why are Architects not more thoroughly identified with their works than they are? In other words, why do Architects not sign their work as do painters, sculptors, and engineers? Is not the work of an Architect a picture in stone, marble, or terra-cotta, as the case may be, enduring for long ages? I am not one of those who think it is ill taste for an Architect to allow his name to appear on his building. On the contrary, I am of opinion that both the name of the designer and the date should appear on all the more important buildings. From an historical point of view alone it would be most valuable. The history of many of the finest monumental works of bygone ages would have been better known had this custom obtained. We happen to know who were the Architects of the Parthenon, and the sculptors engaged on that most perfect work; but who can say the name of the Architects of the equally wonderful work of the Baalbek and Nile temples, of which we have spoken? Who conceived that splendid pile of towers and gables crowning the hill at Durham? for there is little doubt, although the Cathedral was built at different periods, the general idea was the conception of one mind. For the matter of that, who designed our own beautiful St. Nicholas? We know who was the generous citizen who paid for it; but who was the Architect who carried out this engineering feat, and, at the same time, clothed it in such graceful form? During my travels in different parts of the world, I have had opportunities of seeing wonderful examples of Architectural Art, but I have observed, I confess with feelings of sadness, how exceedingly rare it is to find any record of the men who produced them—their very names are unknown. The princes in whose reigns they may have been erected are all duly recorded, and occasionally the names of the generous donors are handed down to posterity; but of the great minds that have created these wonderful works which have for ages gone by and will for ages still to come be the delight and astonishment of the world, there is no record. Let us hope that the poor Architect worked for the love of his Art, and not for fame; that he may have reaped to some extent, at all events, a portion of his reward by seeing his dreams realised in imperishable materials. Perhaps in thinking it should be otherwise we expect too much. I do not know, but I think the question as to whether an Architect should sign his work is worthy of consideration.

* We have pleasure in giving prominence to the opening address of Mr. Archibald M. Dunn, President of the Northern Architectural Association. We are able to exclusively publish this interesting paper, with the conclusions of which we are in entire agreement. Indeed, they voice the attitude to Architecture repeatedly expressed in these columns. The Article will be concluded next week.

IT is proposed to extend the Cheyne Hospital for Children by the erection of a double ward at a cost of £1,400.

FOR the convenience of those unable to attend during daytime, the Arts and Crafts Exhibition, at the New Gallery, Regent Street, will be open every evening of this week from 7 to 10, with the exception of Thursday, on which night Mr. Halsey Ricardo will lecture on "Colour in Architecture." The exhibition closes on Saturday.

TRINITY CHURCH, New York, in the Broadway, is said to show signs of impending ruin, and if a total collapse of the Church is to be averted most extensive repairs will have to be effected. Its crumbling condition is distinctly traceable to excavations and blasting operations carried on in its immediate vicinity.

Sir Christopher Wren and his Work.

AN HISTORICAL AND CRITICAL SKETCH.

By ARTHUR STRATTON.

Read before the Liverpool Architectural Society, and published exclusively by the Builders' Journal.

PART II.—THE WORK OF WREN.

(*Concluded.*)

DESIGNS NEVER EXECUTED, SURVEYS, TREATISES, &c.

Designs for the Restoration of St. Paul's, with Cupola, before the Fire.
Do. The Rebuilding of the City of London after the Fire.
Do. Royal Mausoleum at Windsor 1678
Do. Theatre and Library at Trinity College, Cambridge 1678
Do. Winchester Palace. Part only executed.
Do. St. Mary, Warwick. Tower only executed. 1694
Do. Whitehall Palace 1697
Do. Western Towers and Central Spire to Westminster Abbey.
Do. Baldacchino, etc., St. Paul's.
Survey of Salisbury Cathedral 1669
Do. Audley End 1695
Do. Westminster Abbey.
Treatises on Scientific Research, very numerous.
Do. Architecture (incomplete) published in "The Parentalia."

A GENERAL CLASSIFICATION OF THE CHURCHES ERECTED IN THE CITY OF LONDON, AFTER DESIGNS BY SIR CHRISTOPHER WREN.

The names of the Churches in each group are arranged in the order in which they were commenced.

Those printed with an asterisk against them have since been removed or destroyed from various causes.

S. denotes Stone Steeple or Lantern.
L. ,, Lead Spire or Lantern.
T. ,, Tower only.

CENTRAL AREA PLAN.
(Domed.)

S.—St. Stephen, Walbrook.
* T.—St. Benet Fink, Threadneedle Street.
L.—St. Swithin, Cannon Street.
* S.—St. Antholin, Watling Street.
L.—St. Mildred, Bread Street
L.—St. Mary Abchurch, Abchurch Lane.

GREEK CROSS PLAN.
(Intersecting Barrel Vaults.)

T.—St. Mary-at-Hill.
L.—St. Anne and St. Agnes, Aldersgate.
L.—St. Martin, Ludgate Hill.

SIMPLE APARTMENT.—NO AISLES.
(Vaulted or Ceiled throughout.)

* T.—St. Olave, Jewry.
L.—St. Michael, Wood Street.
* T.—St. Mildred, Poultry.
S.—St. Stephen, Coleman Street.
L.—St. Nicholas, Cole Abbey.
* T.—St. Michael, Queenhythe.
* T.—All Hallows, Bread Street.
* S.—St. Mary Magdalen, Knightrider Street.
* L.—St. Benet, Gracechurch Street.
* T.—St. Matthew, Friday Street.
L.—St. Edmund-the-King, Lombard Street.
T.—All Hallows, Lombard Street.
S.—St. Michael, College Hill.
T.—St. Mary, Somerset.

BASILICAN OR AXIAL PLAN WITH SIDE AISLES.
(Vaulted or Ceiled throughout.)

S.—St. Mary-le-Bow, Cheapside.
T.—St. Michael, Cornhill.
* T.—St. Dionis, Backchurch.
S.—St. George, Botolph Lane.
L.—St. Magnus the Martyr, London Bridge.
S.—St. James, Garlick Hithe.
L.—St. Mary, Aldermanbury.
L.—St. Michael, Bassishaw.
* T.—St. Bartholomew-by-the-Exchange.
S.—St. Bride, Fleet Street.
St. Clement Danes, Strand (Apsidal).
L.—St. Peter, Cornhill.
T.—St. Mary, Aldermary.
L.—St. James, Piccadilly.
L.—St. Austin and St. Faith, Watling Street.
S.—Christ Church, Newgate Street.
T.—St. Andrew, Holborn.
T.—St. Andrew Wardrobe.

BASILICAN OR AXIAL PLAN, ONE AISLE ONLY.
(Vaulted or Ceiled throughout.)

L.—St. Lawrence, Jewry.
T.—St. Clement Eastcheap.
* T. All Hallows-the-Great, Upper Thames St.
L.—St. Benet, Paul's Wharf.
L.—St. Margaret Pattens, Rood Lane.
* L.—St. Michael, Crooked Lane.
L.—St. Margaret, Lothbury.
S.—St. Vedast, Foster Lane.

MAIN DRAINAGE SCHEME FOR MANCHESTER.

THE report of Mr. T. de Courcy Mead, the City Surveyor, upon the main drainage scheme, with a description of the works included in the original scheme, those actually executed or in course of construction, and those still required to complete the whole undertaking, bearing date October 19th, has at length been printed and circulated. The report commences with a summary of the proceedings of the committee, and a short chronological account of the schemes for main drainage and flood prevention that have been from time to time under their consideration, and which ultimately led to the adoption and execution of the main drainage works now approaching completion. It was not until 1887 that a scheme was resolved upon, which was the scheme of Mr. Allison, the estimate of the cost being half a million of money. The approval of the Local Government Board was given in March, 1889, subject to certain other modifications and additions, and a month later the City Council instructed the committee to carry out the work. By the incorporation of Blackley, Clayton, Crumpsall, Kirkmanshulme, Newton Heath, Openshaw, and West Gorton, in 1890, an extension of the intercepting system of sewers became necessary, the capacity of the sewers already decided upon being, however, in Mr. Allison's opinion, sufficient for the extra sewage brought into them. To meet the necessary cost of the extension power to borrow a further sum of £100,000 was obtained from the Local Government Board. Mr. Allison died in February, 1894. After giving in minnte detail a description of the works at Davyhulme, and the processes performed there, together with descriptions of the sewers of the city, the City Surveyor says he has endeavoured to prepare a comparative statement, showing the original estimates and the actual cost of the works in detail, but as the contract work was not let in the same sections, as set out in the original estimate, he found it was not possible, with the information available, to make out a statement of the kind indicated. He desires, however, to point out that the original estimates did not include the sums that have necessarily been expended on arbitrations and other contingent expenses. The estimate, amounting to 500,000, was for the main drainage of the city before extension, at a time when the

SHIP CANAL WAS NOT CONSTRUCTED,

nor was the Mersey and Irwell Joint Committee in existence, and the standard of purity which might then have sufficed, would not now meet the altered circumstances of the case. The treasurer's return of the amount spent on sewerage and sewage disposal capital account to the 30th September last, was £636,026 12s. 5d. Mr. Meade estimates that for completing the scheme the following sums will be needed:—Further payments on contracts, £56,265; cost of sewer connections, reversals, renewals, and repair of old sewers, £47,800; wayleaves, easements, and compensations, £10,150; repair of water, gas, and other pipes, and on highways, £2,500; reconstruction and repair of old sewers in the field of new works, £2,000; provision of flush chambers, £5,000; Shooter's and Newton Brooks' reversals, repairs, and reconstruction, £9,270; completion of works at Davyhulme, £21,771; sludge disposal (cost of steamer, £25,000, pumping mains, jetties, tank, and additional machinery, £6,250), £31,250; estimated cost of effluent conduit from Davyhulme to the estuary of the Mersey, £258,000; establishment charges, legal and engineering expenses, and sundries, £10,000; making a total of £454,006, from which is to be subtracted estimated amount payable by the Stretford District Council on capital account, £26,052 8s. 9d., estimated amount payable by the Audenshaw District Council £600, and sale of the plant, material, &c., £1,000, leaving a net total of £426,353 11s. 3d. Summary:—Amount expended upon sewerage and sewage disposal, £636,026 12s. 5d.; required for the completion of the scheme, £426,353 11s. 3d.; total estimated cost of completed scheme, including the estimated cost of the works proposed for effluent disposal and sludge disposal, £1,062,380 3s. 8d. The borrowing powers at present in force amount to £175,750, and further borrowing powers will be required for the completion of the work within the city, and for additional works at Davyhulme, exclusive of the conduit to the estuary, amounting to a total sum of £88,630. In an appendix, dated August 24th, the City Surveyor submits particulars as to the repairs of work under main drainage contracts. In one contract, the work varying from 9 ft. circular to 3 ft. by 2 ft. egg-shaped sewers, a total length of about 6,985 yards, the work was defective in places, and the contractor had made good almost all the defects that were discovered. In a contract for a circular storm overflow and effluent conduit at Davyhulme, a portion of the sewer between the tanks, about 125 yards, partially collapsed and

BECAME DANGEROUS.

This small portion of the work was, therefore, removed and rebuilt at the expense of the Corporation. The remainder of this sewer does not show any appearance of failure. A report on certain contracts for sewers in the City was omitted, as a law-suit is pending between the Corporation and the contractors. Certain works at Davyhulme were reported as complete on the 9th July, 1894, and during the same month the effluent was admitted to the surface of the filters. Within a short time defects became apparent, and large quantities of soil were washed into the pipes. It was then discovered that the portions of the work opened for repair were defectively executed, and after a further trial it was found that the whole of the carriers for drains were most improperly constructed, therefore, the entire work, including the main carriers, with the exception of a small fraction at one end of the ground was re-executed by the contractor and at his expense. The large concrete effluent carrier was also found on examination to be made with much less than the specified quantity of cement, and a proportionate deduction was made from the contract for this omission. The work was executed under the immediate direction of a clerk of the works with two inspectors to assist him. These persons had no other duty to attend to, and as the whole of the work was fully exposed to view from the surface during construction they were dismissed by the committee when the

DEFECTS WERE DISCOVERED.

The works were finally measured by Mr. Jackson, quantity surveyor, and although considerable trouble, inconvenience, and 17 months' delay had been occasioned, the committee had now received the full value of the sum expended. In another of the contracts for sewers in the city, a length of 1,413 yards had to be taken out and reconstructed by the contractor at his cost. Sewers varying from 5 ft. to 2 ft. 6 in. in diameter in another contract in the city had been found defective only to the extent of 1½ per cent. of the whole, and the defects had since been made good by the contractor. In a contract for 4,700 yards' length of sewers about 57 per cent. of the brick sewers were found to be defective, and had been reconstructed by the contractor at his expense. About 5,519 yards of sewering which is still in course of construction in the north of the city has been examined. That portion under the direction of the present staff has been found sound throughout, but some of that previously executed has been found defective, and it has not been practicable to repair the defective parts of the work at present, as the sewer is being used for carrying off the water pumped from the works in progress at the higher levels. When these are completed the contractor will take out the defective work

and make it good at his own cost. This contract will take a much longer time than was anticipated to complete, as it has to be executed for the most part in running sand. The cost will also be consequently increased. Another length of sewering, of 5,392 yards, found the contractor unable to continue the works at his contract prices, and they were therefore taken possession of by the committee's staff. The cost of executing the work by the committee's staff had been in

EXCESS OF THE CONTRACTOR'S PRICE,

but thoroughly sound work has been secured. The work previously executed by the contractor under this contract has been closely examined and found to be of good quality. Every endeavour, says the City Surveyor, is being made to ensure that the works now in progress are being executed in accordance with the contracts. At intervals the work is being cut into by the staff of the Paving and Highways Committee or of the Rivers Committee, and the work is then carefully examined by the engineers or the district surveyors, and the result reported to the City Surveyor. This system ensures, as far as practicable, the execution of good work. By arrangement between the Chairman of the Rivers and Paving Committees the connections between old and new sewers are now being made by the staff of the Paving Department, under the direction of the City Surveyor. The cost of the work will considerably exceed the amount originally estimated, and in many cases the old sewers, when opened, are found to need total or partial construction. An approximate estimate of this work will be submitted by the City Surveyor.

NEW BILLS FOR NEXT SESSION.

WORKS of public interest embodied in private Bills for next session are likely to be numerous, and some of the new schemes affect both the East and the West End of London to an important extent. The leading railway companies are the chief promoters of these schemes, and although the mileage of new lines to be constructed is not large the work proposed to be done in the country is for the most part useful as connecting links between existing systems. Three new schemes in London first attract attention. An underground railway from Piccadilly Circus to South Kensington, to be worked by electricity. Then the Metropolitan District Railway Company are applying for power to construct a deep-level electric railway from Earl's Court to the present Mansion House station in the City, passing under the Savoy, the Strand, the Temple, and St. Bride. Power is also taken to enable the Company to work their existing railway by electric power, and to construct additional works. As to the East End, there is a scheme for the construction of a railway from Whitechapel to Bow, connecting the Metropolitan Railway at Vallance Road with the London, Tilbury, and Southend Railway near Campbell Road, along with subsidiary works, to be carried out by a company to be incorporated for the purpose, in conjunction with the existing companies concerned. In addition to these London schemes a company proposes to construct a "West Suburban Railway," to be worked by electricity, from Praed Street, Paddington, through Kensington and Hammersmith, to Willesden, near the "Grand Junction Arms" public-house. In North London, the present Tramway Company propose to make several extensions and additions to their existing lines in Islington, Hackney, West Ham, Bethnal Green, &c. The Great Northern, Finsbury Park, and City Electric Railway Company are also applying for an extension of time for the construction of their proposed railway.

"BLACK JACK ALLEY," which is famous as the residence of the real original Joe Miller, of Jest Book fame, is likely soon to be abolished, as the Board of Works of St. Giles is about to open up new streets or widen old ones between Lincoln's Inn Fields and the Law Courts.

MESSRS. E. J. RAYBOULD & CO., LIMITED, Workington, have secured a contract for the supply and erection of fencing and gates on commons in the North of London, for the Tottenham Urban District Council. The amount to be laid out by the Council is £1,075.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
December 2nd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

AT the bottom of the Haymarket the last vestige of the huge block of buildings of which Her Majesty's Opera House formed the central feature will soon have disappeared. The arcade and line of shops on the southern side of the site are being demolished, and there are already great gaps in the once pretentious façade. The clearance of the ground is a preliminary to the erection of another hotel. It may be hoped that the efforts made by private enterprise in this direction will stimulate the authorities to a little activity in removing that other eyesore of central London—the vacant site opposite Dover House in Whitehall. The condition of this ground, with its tumble-down shanties and its heaps of rubbish, is a scandal.

THE lighting of the City by electricity is by no means complete, as there is an enormous area which is still illuminated by gas. The principal thoroughfares have been treated in a lavish manner; indeed, there are many who consider that the scheme is an extravagant one. It is in the smaller streets and byeways that a good supply of light at night is most needed. The members of the Commission of Sewers have, however, been somewhat exercised in their minds as to the precise system of electric lighting they should adopt in the minor streets. It is obvious that anything on an ambitious scale is quite unnecessary, and that it is not imperative that the system to be employed shall be an expensive one; but, at the same time, it must be adequate. With a view to ascertaining the best system of lighting these smaller streets, a series of experiments has been carried out by order of the Streets Committee, under the direction of the electrical engineer to the Commission (Mr. Voysey). In Watling Street, Bow Lane, Bread Street, Friday Street, and Old Change, experiments have been carried out by continuous and alternate current lamps, some partly on brackets fixed against the fronts of houses, and partly by lamps suspended across the centre of the street. The Commission has not yet decided which of these processes is the best.

PROPOSALS for the establishment of no fewer than three new metropolitan theatres have been before the Theatres Committee of the County Council. Mr. F. W. Purcell has secured the approval of the Committee to the plans of the Alexandra Theatre in Stoke Newington Road, between Princess May and Wiesbaden Roads. The Council's regulations are fully complied with, and the new house will accommodate 2,000 persons. Drawings submitted on behalf of Sir Henry Brownrigg for the construction of another, to accommodate an audience of 800, at the corner of Norris Street and St. Alban's Place, Haymarket, have also passed the Committee. To the request for permission to erect a building in the New Cross Road, Deptford, the Theatres Committee, however, offer uncompromising opposition, on the ground that the site is unsuitable. All three applications will come before the Council at an early date.

A CORRESPONDENT, writing to the Daily Graphic on "Vanishing London," says:—"Many of the doomed Churches, such, for instance, as the beautiful edifice ruthlessly destroyed in Regent Street, could surely be re-erected in neighbourhoods where there is a demand for places of worship. I imagine the expense would not be greater than if totally new Churches, of new design and new materials, were built. Historical monuments, whose Artistic merits had successfully passed the test of time, could thus be made to bring interest into otherwise uninteresting neighbourhoods. As to valuable specimens of domestic Architecture, why not re-erect them as a real and permanent "Old London Street," to form an annexe in the grounds of one of the existing museums, or else at some such place as Wembley Park, the Crystal Palace, or Earl's Court? The rooms might be used as a museum of the history of London.

OF the City Churches of the old school, one of the most interesting is St. Nicholas Cole Abbey. The Church stands on the brow of the hill, which was occupied in mediæval times by the City fish market, that extended from Queenhithe, hard by Cannon Street Station, westward. The affix, "Cole Abbey," is somewhat of a mystery. A few authorities derive it from "Cold Harbour," which seems a little far-fetched. Others think it refers to a problematical founder named Nicholas Colbey. The present Church was built by Wren, at a cost of £5,500, its predecessor having been totally destroyed in the Great Fire. It is interesting from an Architectural point of view, as it is the first of the 49 Churches that Christopher Wren built in the City. The building is rectangular, without any defined chancel, the sacrarium being surrounded by a carved oak rail. The reredos is also of oak, and dates back to the building of the Church. It is richly carved, the work being, it is believed, by Grinling Gibbons. The centre is filled by a mosaic representing the Agnus Dei, with the symbols of the four Evangelists in the angles, the panels on either side being occupied by figures depicting the sacrifices of Abel and Melchisedec. Perhaps the most artistic thing in the whole Church is the seventeenth-century brass chandelier, which hangs in the centre of the building.

A MEETING of the executive committee of the "National Trust for Places of Historic Interest or Natural Beauty" was held at Great College Street, S.W., last week, Sir Robert Hunter presiding. It was announced that the whole of the purchase-money for Barras Headland had been received, but that only £160 has been obtained for the preservation of the old pre-reformation clergy house at Alfriston, out of the £350 appealed for. Mr. A. Powell, the Architect, reported that unless further funds were forthcoming the work of repair would have to be suspended, to the imminent danger of the fabric. The committee hoped that the public would prevent such a contingency arising by immediately contributing to the presentation scheme. Sir Robert Hunter and Canon Rawnsley were nominated to represent the Trust upon the committee elected by the London County Council to consider the possibility of scheduling and preserving the historic buildings of London. The resignation of the secretary, Mr. Lawrence W. Chubb, who has been appointed secretary of the Commons Preservation Society, was accepted, and a vote of thanks to Mr. Chubb for his indefatigable efforts in the Trust's work was passed. Mr. A. M. Poynter, son of the President of the Royal Academy, was elected secretary in his place. It was determined to confer with the Open Space Societies regarding a suggested appeal to landowners and local authorities throughout the United Kingdom to dedicate to the public, in commemoration of Her Majesty's sixty years' reign, some open space, footpath, or place of historic interest or natural beauty during the ensuing year. The proposed demolition of the Herber Tower at Newcastle to make room for a bakery was brought before the notice of the Trust, and it was decided to appeal to the Corporation of Newcastle and to the Armourers' Company of Newcastle to do their best to retain this interesting tower upon the western walls of the northern city.

DR. E. W. HOPE recently gave a lecture on Municipal Sanitation, in which he gave a retrospect of the deplorable condition of things in Liverpool prior to the various Public Health Acts, of which Liverpool was the pioneer. He referred to the evolution of sanitation through successive periods, and spoke of the great difficulty the early promoters of the science had to contend with, not only amongst the poor and

ignorant, but also amongst the educated. The importance of water could not be over-estimated, and it was gratifying to know that the magnificent water supplies, instead of flowing to waste over the by-washes, were made use of for flushing the city. Purity of air was the most important requirement. We were satisfied to take in our food three or four times in the 24 hours, but we took in air 16 times every minute. Air of cities was from the nature of it essentially impure, but there were points in which individual attention could do much to mitigate, such as smoke. There was no reason why, in addition to the ordinary products of combustion, a canopy of smoke should always hang over the city. In the course of his lecture, Dr. Hope touched upon many other interesting matters of this widely important subject.

THE old Church at Bow is in so dangerous a condition that it has been found necessary to close the building, and conduct the services in the vestry hall. The question under discussion is whether it shall be pulled down or restored, and there seems some difficulty in coming to a decision. To put it in thorough repair will, it is said, cost £600; and considering that the building has a history extending over nearly 600 years, it would seem at first sight that the best thing to do is to set about the task at once. On the other hand, it is urged that, as the Church stands in the centre of the road, and will have to be pulled down sooner or later to accommodate the traffic, it would be wiser to remove the old building and erect a new Church on another site. The Church was erected in the 14th century as a Chapel of ease to Stepney, and, although not of striking interest Architecturally, it is a picturesque object. Sir Walter Besant says:—"There is not much in the Bow Road, except the beautiful old Church of Bow standing in the middle of the road, crumbling away slowly in the East End fog, with its narrow slip of crowded Churchyard; one hopes that before it has quite crumbled away someone will go and make a picture of it—an etching would be best."

FROM time to time different objects are being placed in show cases of the British Museum, but in no department is the addition so apparent as in that of the department of Egyptian and Assyrian antiquities. Not many days ago we noticed the addition of some very valuable bronze castings and some important works of Art in crystals, and now we have to chronicle the addition of a very important inscription of King Samsitiluna, who reigned over Babylonia in B.C. 2145. This king constructed some of the principal canals of Babylonia, and was a great worshipper of the god Sin, the Moon god of Ur, the ancient city of Abraham, and now marked by the mounds of Tel el Mugheir. There is also a curious object made of granite, which may have served as a gate socket; it is inscribed with a votive inscription of Sid-lam-ta-ud-da about B.C. 2500.

AT Aberdeen University College, Mrs. Lauder Thomson recently delivered the third of her course of lectures on "The Italian Painters, Sculptors, and Architects of the Early Centuries." In the course of a reference to Lorenzo Ghiberti, who died in 1455, the lecturer said that well-known painter gathered many distinguished men around him by his abilities, one of the most prominent being Masaccio, who was born in 1401. Masaccio, from an early age, was wrapped up in his Art, his great object being to give his figures life and animation, and to abandon the formalities of Art. Although he died while still young, Masaccio's frescoes marked an epoch. Speaking of his work, Mrs. Lauder Thomson remarked that he was one of the first that could draw the nude figure. Now he was ranked not only as one of the best painters of his time, but of after years. Up to that period the painters' and sculptors' work dealt chiefly with ecclesiastical subjects; but Fra Filippo Lippo, although proceeding on the same lines as Masaccio, did not attain the same heights, and lost reverence and spirituality in dealing with sacred subjects. Then with Benozzo Gozzoli, who lived between 1420 and 1498, Scripture subjects were the medium for representations of costume, landscape, and animal life. His frescoes were beautiful pictures, full of animation, and his existing works were considered to be very valuable as marking the remains of that particular school. In concluding the lecture Mrs. Lauder Thomson said her hearers could not but be impressed by the wonderful strides Art had taken in the years she had spoken of. At the death of Gozzoli how perfect Art had become. In many instances she thought it would be good if they could go back to the spirituality of design of some of those old pictures, to stand in front of which was a sermon in itself. The splendid lime-light views helped greatly to a true appreciation of Mrs. Lauder Thomson's lecture.

JERUSALEM remained what it was in the middle ages until comparatively a short time ago. The new town outside the walls has destroyed its character as a hill stronghold. Unfortunately changes are taking place within the walls as well as without. Many of the old buildings have been demolished, and the time seems to be approaching when there will be none left at all. The rival Christian bodies are the worst offenders, and the French and Russian missionaries the most active in the work. The former have swept away the fine ruins of the Byzantine Church of St. Stephen to make room for a new one of the order of Architecture favoured by the suburban builder. The ancient Church of St. Anne is being crowded with the tawdry and tasteless ornament of modern Rome. What is called the Pool of Bethesda, a twelfth-century structure, is going to be restored. The Russians disfigured the Valley of Jehoshaphat years ago by a hideous memorial Church. They have built a tower like a factory chimney on the top of the Mount of Olives, and reared a huge barrack for pilgrims on the Jaffa road. In the centre of the city the Germans have cleared away the beautiful ruins of St. Mary's, and a new Lutheran Church is the phœnix arising from the ashes. The mediæval buildings attached to the Holy Sepulchre are disappearing piecemeal.

IN a paper published in the Proceedings of the American Society of Civil Engineers, by Mr. G. S. Morison, the question of the design of suspension bridges is discussed. Mr. Morison holds that for spans up to 800 feet a cantilever or truss bridge will, in general, be more advantageous than a suspension structure, while the latter is best fitted for freeing openings exceeding these limits. For the cables he advocates the use of wire ropes, in place of the straight wires which have been considered best up to the present. The main cables are arranged to terminate at the tops of the towers, which are stayed back to the shore anchorages by special stay cables. In this way the distance between the tower and the anchorage point may be made any desired amount in place of being dependent on the span and dip, as when the cables are continued over the towers. A very similar arrangement was shown in the competitive designs for the great suspension bridge over the Danube, adjudicated on two or three years ago. Here the main cables were made continuous over the piers, and were reinforced by special stay cables between the tops of the piers and the anchorages. Mr. Morison proposes that for a 3,200-feet span the stiffening truss should be 4,100 feet long, thus extending far beyond the towers. The suspenders between this truss and the main cables should only extend over the central seven-eighths of the span. The stiffening girder, he suggests, should be of the cantilever type, the hinges being fixed at points 150 feet distant from each tower.

EVERY archæologist and lover of the picturesque will bitterly oppose the proposal to make serious alterations in the delightful old Hospital of St. Cross, near Winchester. What is suggested involves the destruction of some of the existing buildings to provide a new house for the master, who is himself among the objectors to the scheme. Nothing but the most absolute necessity, which seems in the present case impossible to plead, would excuse any tampering with a group of buildings so uniquely beautiful; and certainly a proposal leading to so much danger to the Hospital needs supporting by very much stronger arguments than have as yet been advanced in its favour. Even the trustees of St. Cross are so far from being unanimous about the need of the additions and alterations that there was, when the scheme was discussed by them, a majority of one only in its favour. It is as well to point out that if increased accommodation in the Hospital is desirable, it can easily be provided by an extension on the western side of the quadrangle, without touching any part of the existing group.

IT is proposed to place a memorial to the late Primate in the Parish Church of Pateley Bridge, the Benson family having been connected with the district for over 500 years. They were originally tenants of Fountains Abbey, and foresters and afterwards freeholders of Knaresborough Forest. Early in the fourteenth century Robert Benson held the lodge of Brighouse, and from him the late Archbishop was descended in a direct line. The parish registers from 1557 to 1806 (when the Archbishop's grandfather was buried) contain many entries relating to the family. The memorial will take the form of a brass lectern and the completion of the chancel, the extent and character of the work depending upon the amount subscribed.

IT has been decided to expend about £1,000 in draining, road-making, and renewing the surface of Dudhope Park, Dundee, the work to be done in three instalments, and the expenditure to be spread over from three to five years. The first instalment is to be proceeded with at once, and consists of excavating of walks, drainage, and forming of walks in that portion of the park lying between Barrack Road on the east, westward to and inclusive of the walk leading from the Hospital buildings to Dudhope Terrace.

AN electric railway for passengers is proposed for Mont Blanc. Up to a certain height it would be on an inclined plane, and the ascent would be completed by a vertical shaft of a depth of 2,539 mètres, through which powerful electrical lifts would convey the passenger to the summit. We predicted it would come. After Pilatus, the Yungfrau; after the Yungfrau, Mont Blanc. If the scheme is ever carried out it will serve at least one useful purpose, inasmuch as it will afford a ready means of access to the observatory which has been established on the top of the monarch of the Alps.

WE are accustomed to regard Italy rather as a field for the remains of highly-developed civilisations than one for the discovery of relics of primitive and pre-historic communities. But of late, both on the mainland and in Sicily, Italian archæologists have been unearthing vestiges so ancient that beside them those of the Etruscans are comparatively modern. An important find of this nature has recently been made near Colunga, in the Emilian Province. The remains of a village and necropolis have been disclosed, and in the latter is a man's skeleton, buried in a squat position.

IN 1898, the city of Turin proposes to celebrate the fiftieth anniversary of the promulgation of the statute of the kingdom by a General Italian Exhibition, which is to illustrate the powers of the country, and of her improvements in every branch of human activity. A large department of the exhibition will be reserved for the works of the Italians abroad and of the Italian colonies. There will be a show of ancient and modern sacred Art. The exhibition of electricity will be international. The buildings of the exhibition are already under construction in the park of the Valentino. The Minister of Finance has granted a temporary free importation into Italy of manufactures coming from abroad addressed to the Exposition of Turin, 1898.

UPON the present "Wardrobe Place," in the parish of St. Andrew-by-the-Wardrobe, in the city of London, which is to be acquired for additions to the Post Office Savings' Bank, originally stood a house built by Sir John Beauchamp some years before he died in 1359. His executors sold it to Edward III., and it was subsequently converted into the office of the Master of the Wardrobe and the repository for the Royal clothes. When Stow wrote his "Survey of London," Sir John Fortescue was lodged in this house as Master of the Wardrobe. Fuller also writes:—"In this place were kept the ancient clothes of our English Kings, which they wore on great festivals, so that this wardrobe was in effect a library for antiquaries therein to read the mode and fashion of garments in all ages." King James,

in the beginning of his reign, gave these ancient clothes to the Earl of Dunbar, by whom they were sold and resold, some gaining vast estates thereby. The house was destroyed in the Great Fire of 1666, and the wardrobe was then removed to the Savoy, and afterwards to Buckingham Street in the Strand. The last Master was Ralph, Duke of Montague, on whose death, in 1709, the office, writes Cunningham, was abolished.

At a meeting of the Aberdeen Ecclesiological Society, on Wednesday last, it was stated that the Council had had under consideration the proposal to admit apprentice Architects as members of the Society without entrance fees and on payment of reduced annual subscriptions, but in view of the calls upon the funds of the Society the Council did not see its way to the adoption of the proposal. Mr. T. S. Robertson, Architect, Dundee, read a paper on the Parish Church of Burntisland. That curious Church, Mr. Robertson stated, was built in 1592-4. It had four central piers connected with semicircular arches for the support of a central tower. Galleries were introduced round the four sides in 1613. The plan of the building was said to have been copied from the North Church in Amsterdam. Mr. Robertson showed a number of plans of the building as illustrative of his remarks.

FOR about six months the joiners of Brussels have been out on strike in support of an application to have their wages increased from 3½*d.* to 5*d.* an hour. The employers, to begin with, offered a small concession, but this the men declined to accept. Some eighty of the smaller firms have granted the advance, and are now working, but a minority of the Employers' Federation, who find employment for the large majority of the men, are holding out. What is somewhat exceptional in continental disputes of this kind is that the men had funds in hand to start with, and also that the joiners at work are subscribing liberally in order to provide those on strike with what, even according to English ideas, would be deemed reasonable pay. But the length to which the dispute has been carried has at last exhausted the men's funds, and they are now appealing to British workers for assistance.

AT Calcutta, Sir Alexander McKenzie, Lieutenant-Governor of Bengal, recently laid the first stone of the drainage extension works, and, in reply to an address, made some strongly-worded observations, pointing out faults on the part of the Corporation, and criticising what he described as the inconsequent debates, the unbusinesslike work, and the petty bullyings to which the executive was subjected. His Excellency, at the same time, gave a clear intimation that unless steps were taken to remedy the appalling state of sanitation which had been revealed by the report of the medical board, the Government would have to act without consulting the municipal authorities.

ONE of the finest virginals in existence, on which the authorities have kept a covetous eye for about eight years past, has been secured for the South Kensington Museum, says the Daily News. It is the famous virginal hitherto belonging to M. Terme, the director of the Museum of Lyons, which created so much sensation when it was exhibited in the Brussels Exhibition of 1881. The fact that the maker's name is not known is of little importance, for the instrument evidently belongs to the finest period, while such renovations as have been necessary here and there, where the mouldings were worm-eaten, make no pretence whatever of being "restorations." In the circumstances, then, the condition must be considered very fine, and the price at which it has been bought, namely £800, is by no means excessive.

IT is understood that the work of transforming the Old High School buildings, Arbroath, into a Library and Picture Gallery for the town will be commenced almost immediately. The plans have been drawn to give effect to what Mr. Corsar has considered the most effective arrangement for securing the best possible accommodation out of the Old High School buildings. The front elevation shows that a porch is to be erected in front of the present door in a style corresponding with the Architecture of the present building. The staircase is to be restored to the old arrangement. The first central flight of steps starts from the middle of the lobby, and half-way up divides into two flights, which conduct to the upper floor. At the landing a new flight of steps will lead up to the rooms to be used as a Reference Library. On the visitor's right hand, as he enters the building, will be the Lending Library, with book-stores, librarian's room, and committee-room behind. The Lending Library will be fitted with counters, book-shelves, library indicators, and all the other modern library appurtenances. The Reading Room is situated to the left of the entrance. It will be a spacious room, measuring some 35 by 36 feet. This extended space has been got by building to the line of Academy Street a side wing one storey high with flat roof. At the east side of the building a screen wall has been erected to correspond with the front wall of the wing on Academy Street side, so as to give a uniform appearance to the frontage. The landing at the top of the stair will be considerably extended by the removal of the small room which was used in the Old High School as a laboratory. The rooms on the right and left measure 25 feet by 35 feet each, and these are to be utilized as Picture Galleries. The present windows will be built up, the front ones being converted into niches suitable for the accommodation of statuary, &c. The height of the galleries will be about 20 feet. This height, which is ample for the effective exhibition of a very large number of pictures, has been secured by raising the walls about 3½ feet, and erecting over them a coved ceiling. The two rooms on the upper floor in the back wing of the building—one 33 feet by 18 feet and the other 16 feet by 18 feet—are to be used as a Reference Library and Ladies' Reading Room. Both provide considerable accommodation for books, and will be well lighted. The Reference Library and Ladies' Reading Room are reached by a short flight of steps running from the first landing in the central staircase. The whole of the outer offices will be cleared away, so that the freest access may be given to light and air around the whole buildings. There will therefore be considerable space at the back of the buildings, which may be utilized some day, when public necessity demands that the Library Buildings shall be extended. The whole of the present dead wall bordering Academy Street, as well as the front parapet, will be taken down, and a uniform parapet with ornamental railing erected.

SOME of the leading aims of the Plumbers' Company were brought under notice at a dinner given on Thursday night in Fishmongers' Hall. National registration of plumbers is intended to elevate, by education, the status of the craft, to give every competent plumber a diploma, which will be recognised throughout the empire, and to ensure by these means the protection of the public health. The Lord Mayor spoke hopefully of the civic authorities getting control of the water. He was happy to think that the sanitation of the City was as nearly perfect as could be.—Mr. Wilkinson spoke of the system of education provided by the Company in technical schools, and of the plan of registration which they had established.

IT has been decided that the memorial of the establishment of submarine telegraphy shall be in two parts—the first doing honour to the late Sir John Pender in particular; the second, the inauguration of which is postponed till 1901, jubilee of the first effective Anglo-French cable, being general. The Company entrusted with the work at a recent meeting decided (1) that a bust of the late Sir John Pender, at a cost not to exceed £500, be erected in the Imperial Institute, or other suitable place; (2) that a sum of not less than £5,000 be placed in trust with the Council of University College, London, to form an endowment fund for the maintenance of the electrical laboratory in that College, on the condition that the Council name the laboratory the "Pender Laboratory," and the existing Chair of Electrical Engineering the "Pender Chair of Electrical Engineering"; (3) to endow a Pender scholarship and medal in connection with electricity at Glasgow. For the part of the scheme now under consideration the Committee hope to receive at least £10,000.

Professional Items.

BLACKPOOL.—By a large majority of the Town Council it has been decided to widen the Promenade. The scheme provides for a 15-ft. footpath on the easterly side, a roadway 55 ft. wide, a 10-ft. island footway, a double line of electric tramways, and a Promenade 42 ft. wide on the outer or westerly side, the whole width being not less than 140 ft. The estimated cost is £300,000.

BRISTOL.—Last year accommodation for 128 girls and 147 infants was provided in St. Michael's Parish and the buildings opened, and now it is intended to build schools for 168 boys. The building is of rather a plain description and of stone, and is on a high and commanding site at the crest of the hill, and adjoining the wall of the fort. It also takes in a peculiar piece of Architecture which is thought to be a huntsman's arbour used in the old days of the chase, and it is thought that several of the freestone heads may be used in the Architecture of the new building. The cost of the site, which was secured from the Tyndall Trustees, was £360, and the contract has been let for £1,275, which, with extras, exclusive of the site, will amount to about £1,400. The contract has been let to M. C. A. Hayes, and the Architect is Mr. W. V. Gough.

BUXTON.—At the Town Hall, Mr. Edmund Pearse Burd, of the Local Government Board, held an inquiry into the application for a Provisional Order to enable the Council to borrow additional moneys for the purposes of their water undertaking. Mr. Winser, the engineer, described the new waterworks. The total amount expended was £13,497 9*s.* 7*d.*, his estimate to complete same was £7,502 10*s.* 5*d.*, total £21,000, with contingencies, £845. The reservoir was about three-parts finished. The capacity was 15,000,000 gallons, and the water was supplied by springs on Stanley Moor, and conveyed in pipes. The daily consumption was about 30 gallons per head per day on the population in summer, which varied from 20,000 to 30,000. The water supply from Otter, Hale, Watford, and Cold Springs was carried into the town by pipes. The new reservoir would equalize the flow of water as much as possible, and he should state that the springs all came from the millstone grit; water, in fact came out in volume from the ground. In his opinion it was absolutely necessary that the reservoir should be constructed.

CARDIFF.—The foundation-stones of the new Chapel, Eldon Road, were laid last week. Messrs. Habershon and Fawckner are the Architects, and the plans show a satisfactory design, considering the limited extent of the land available. The principal elevation faces Eldon Road, its most striking features being two octagonal buttresses, surmounted by Bath stone pinnacles, between which is placed a large window, 15 feet high and 11 feet wide. Beneath this window is the main entrance, opening into a spacious vestibule, from which access is gained to the body of the Chapel, and also to the stairs to the galleries, with a baptistery of Sicilian marble in front. Galleries are provided around three sides of the Chapel, and arrangements have been made for the erection of an organ at some future time. The roof is designed open-timbered, and the seating and rostrum are of pitch pine throughout. The Chapel is designed to seat 314 on the ground floor and 274 in the galleries. The contract, which is for £2,425, includes vestries and seven large class-rooms to be erected over the present school. Messrs. C. Price and Son, 4, Wyndham Road, Canton, are the contractors.

DEWSBURY.—New premises have been erected in the Market Place, for the Lancashire and Yorkshire Bank, Limited. The basement floor is set apart for storage rooms and lavatory accommodation for the bank. The ground floor is to be devoted exclusively to banking purposes, consisting of a banking room, manager's room, and the requisite strong room; whilst the first and second floors are arranged in suites of offices. The building has been designed by Mr. J. Lane Fox, Architect, Bond Street, Dewsbury, and under his supervision the work has been carried out by the following contractors:—excavators, masons, and

bricklayers, Messrs. Chas. Whitehead and Sons, Ravensthorpe; carpenters and joiners, Messrs. John Richardson and Sons, Staincliffe; slater, Mr. Thos. Brear, Dewsbury; plumber and glazier, Mr. Frank Newsome, Dewsbury; painter, Mr. Ned Ramsden, Dewsbury; plasterers, Messrs. Thos. Cordingley and Sons, Bradford; electric lighting, Mr. A. R. Turner, Dewsbury; fittings, Messrs. Carr Bros., Bradford.

PUDSEY.—At a recent meeting of the School Board, the tender of Messrs. Peace and Norquoy, of Manchester, was accepted for dividing the main room in the Greenside Senior School. A deputation, representing the ratepayers of the Richardshaw Lane portion of the Pudsey district, attended the meeting to press the claims of that neighbourhood for the erection of a new school somewhere about the centre of the lane. The matter was discussed, and, whilst of opinion that the Littlemore district had at present a more pressing claim, it was considered that a school might probably be required in the Richardshaw lane district at some future time.

GARTLOCH.—Gartloch Asylum, the property of the City of Glasgow District Lunacy Board, was formally opened on Thursday. The asylum is situated on the estate of Gartloch, about seven miles east of Glasgow. Built to the plans of Messrs. Sandilands and Thomson, Glasgow, the erection is constructed on the pavilion system, and comprises two distinct sections, the asylum and the hospital. The style of Architecture is French of the Francis period, and the outside material is red sandstone. The asylum comprises four blocks, the accommodation for the male and female patients being separate. Each block is connected by covered ways with the central or administrative department, which consists of a large dining hall, kitchen, sculleries and general stores. Over the dining hall there is a commodious recreation hall, where concerts and other entertainments may be given for the benefit of the inmates. The official block is placed at the north, and is flanked by two towers which rise to a height of about 130 feet, and add considerably to the impressive appearance of the building. In this part of the asylum, on the ground floor, are situated the board room, doctor's room, waiting rooms, &c., and, on the upper floors, sleeping accommodation for the attendants. Each block is divided into two wards, with dormitories above, and is equipped with boot and lavatory accommodation and large bath rooms. On the male side workshops have been erected, while a laundry has been placed on the female side. The hospital block has accommodation for five classes of patients—wards for observation, for the old and infirm, for acute and noisy cases, for sick and invalid, and for infectious cases—and in it there is a separate dining hall, kitchen and stores. In addition to the asylum, there is a farm, a Chapel, a gate lodge, and a mortuary, all within the grounds. The cost is expected to be about £150,000. The contractors were Messrs. Herbertson and Son.

GILDERSOME.—A new Church School is being erected on a large site a few yards from the present school, and the estimated costs of the buildings, which have been designed by Mr. J. P. Kay, Leeds, inclusive of the site, is £2,400. Accommodation will be provided for 340 scholars, and a large class-room will accommodate 600 persons when utilized as a public assembly room.

KEIGHLEY.—A new building has been erected, to be called the Keighley Temperance Institute, in North Street, at a cost of £9,000. Built at the junction of North and Albert Streets, the new structure suggests a free handling of the classic style. The Temperance Society have surrendered sufficient of their new accommodation to provide room for five shops in North Street, but in the remainder they have a hall large enough to seat 700 persons. The designs were prepared by Messrs. W. and J. B. Bailey, of Keighley and Bradford, and the contracts have been carried out by district firms.

MAENTWROG.—Considerable restorations have been carried out at St. Twrog's Church. The present edifice can hardly be called a restoration, as the Church has been almost entirely rebuilt. The Architects were Messrs. Douglas and Fordham, of Chester.

Correspondence.

To the Editor of THE BUILDERS' JOURNAL AND ARCHITECTURAL RECORD.

DEAR SIR,—Having read with interest your articles on Perspective, which appeared in the BUILDERS' JOURNAL a week or so ago, I have taken the liberty of asking you if you would kindly make plainer to me how to put in perspective the dome on top of the house you took for your subject. I have studied it for a long while, but could not make anything out of it. I understand everything else very well, and so do my fellow-learners. Hoping, Sir, you will kindly grant my request,

I am,
Yours respectfully,
STUDENT.

Gravesend, Kent,
19th November, 1896.

DEAR SIR,—Put square M, N, O, P, Fig. 1, in Perspective. Draw diagonals N, O, M, P, Fig. 2. Through point L, Fig. 2, draw lines vanishing to right and left, cutting the sides M, N, O, P, M, O, N, P, in four points 1, 2, 3, 4. Take width of circle at base of dome from picture plane, Fig. 1, and set this up on Fig. 2, cutting diagonal O, N, in points 5, 6. Draw ellipse through 6 points 1, 2, 3, 4, 5, 6. Draw line through L to K, Fig. 1. Set up K as height line for top of dome, and perpendicular line through point L, Fig. 2. Take height to top of dome from elevation and set up on height line K, Fig. 2, and vanish to right, cutting centre line of dome in point E. You have now three points, E, 5 and 6; through these describe a semicircle, which is dome in Perspective. If "Student" will carefully follow these directions I think he will have no difficulty in understanding Perspective as applied to domes.

WM. N. CUMMING.

AN APPEAL FROM ABROAD.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—A friend of me was asking me about the laws of English Architectural Association. The matters is that a Dutch Association is newly started, but they are only wanting a good law. Now they propose to make those after some good examples of English clubs, and they were asking me to lend a hand in this. Now I, in my turn, I come to you to ask you if you will be kind enough to send me the Laws of the "Royal Institute of British Architects" and of the "Architectural Association," both of London, or of any other good one. I hope I do not give too much trouble. If there is to make any costs for it I will pay them with most pleasure. With kindest regards,

Yours truly,
A. D. N. VAN GENDT.

10, Plantage Middenlaan,
Amsterdam,
25 November, 1896.

SOCIETY MEETINGS.

Society of Architects.—At St. James's Hall, on Thursday night, Mr. Robert Walker delivered his presidential address to the members. The president confined his remarks almost solely to the question of the interest taken by the society, in common with representative bodies from other professions, in the fortunes of the Education and Registration Bill, which, he explained, had been before Architects who were in practice for some nine or ten years, just a third of the time during which the Medical Act had been struggling for existence. The former measure was a sturdy sessional, and most likely to come on again when Parliament assembled. The scheme which it comprehended was undeniably for the advantage of the public as well as the profession, and the lapse of time had increasingly and abundantly proved the necessity for raising the standard of Art culture and scientific attainments which assuredly would result in the development of the genius and ability of future practitioners. Speaking for himself, as president of that society, he recommended its members never to favour unskilled workmen, for there was an effect due to good workmanship which enhanced the effect of all structures from the plainest to the most Artistic in design, and which effect might be and was in point of fact irrespective of the design, as expression in the human face was not traceable to form and feature. Proceeding, the speaker pointed out that the opponents of the measure under review acknowledged that the evils existed which it was proposed to mitigate and ultimately remove, but in a spirit of pessimism said there was no use trying to provide remedies. He himself insisted, on the contrary, that the only means to accomplish the passing necessity were compulsory education and training, followed by examination to test the results, and these formed up to the standard recorded in a register, that was to say, shortly, by an Education and Registration Act. The speaker then went on to explain that the object of the Education and Registration Committee, and of the 1,300 Architects who had signed the memorial in favour of procuring legal recognition of the profession, was to alter the present state of apathy therein, and to secure a recognised status, to raise the standard of attainments, and to ensure the due qualification of all who practised in their ranks. Legal recognition for members of a profession was a condition precedent to promulgating special education and technical knowledge, and the establishment of examination and diplomas by a central authority. The supporters of the Bill would no doubt be very much pleased to discover unanimity amongst Architectural practitioners in this matter. Unfortunately, the concert of the various societies and institutions was as problematical of attainment as the concert of the Powers.

Glasgow Architectural Association.—At a meeting of the Glasgow Architectural Association, held on Tuesday, 17th November, Mr. Andrew R. Scott, President of the Edinburgh Architectural Society, delivered a lecture, entitled "The Grammar of English Gothic Architecture." The lecturer opened his subject by pointing out, that, notwithstanding the mutilations of time and the hand of man, we had in our mediæval Architecture an inexhaustible store of that which was beautiful and impressive; but how, in modern times, and with all these advantages, excepting a few men like Scott, Bodley, Pearson, and Bentley, the modern Architect had shown himself incapable of grasping the spirit of Artistic and constructional truth which animated the mediæval Artist. Mr. Scott then impressed on his audience the necessity for close and systematic study of the development of mouldings as a key to their comprehension, and the age of the buildings they adorned. Referring to the measuring of old work, he mentioned the different modes for getting the profile of moulded surfaces, such as the cymograph and the use of thin strips of lead, but considered preferable the simple foot-rule, plumb-line, and callipers, always plotting out details, full size, on the spot when practicable. The eye would then get trained to recognize the profile for moulding from a distance. The lecturer then proceeded with a most exhaustive analysis of the development of Gothic mouldings, copiously illustrated by full-size drawings, and closing his remarks by condemning, in modern design, the use of compasses for drawing Gothic forms, instead of a trained eye, as contrary to the usages of the mediæval Artists, and as productive of that stiff cast-iron look, which was the result of all mechanical precision, and the bane of modern Gothic. A discussion followed, at the end of which Mr. Scott was accorded a hearty vote of thanks.

British Archæological Association.—The second meeting of the session was held at the rooms of the Association on Wednesday, the 18th November, Mr. C. H. Compton, Vice-President, in the chair. Miss Turner exhibited a perfect example of an early Christian lamp of terra-cotta, bearing the sacred emblem of a fish. The lamp was found at Rome. Mr. Patrick, Hon. Sec., showed some early Anglo-Saxon coins, one of which was found in the Churchyard of Hexham, in Northumberland, and is of the time of Ethelred. He also exhibited a fine portrait medal in bronze of Queen Caroline, wife of George 4th, issued in 1820. In the author's absence, Mr. Patrick read a paper by Dr. Fryer, on "Christian Emblems found at Trier." These emblems and inscriptions were cut on small marble or stone slabs which were originally let into the lids of stone coffins. In many instances the baptismal name is given, and the sacred symbol employed is placed either

above or below the inscription, which is either "hic iacet" or "hic iacet in pace." These inscriptions mostly date from the end of the fourth and early part of the fifth centuries. The Rev. J. Cave-Browne, Mr. Blashill, who had visited Trier recently, and the Rev. J. H. Dukinfield Astley took part in the discussion which followed the paper.

The Edinburgh Architectural Society.—At the meeting, held on the 18th November, Mr. Alex. McRae read a paper entitled "Hospital Planning," in which he dealt very fully with site, position of wards in reference to exposure, &c., cubic and superficial dimensions relative to size of hospital, heating, ventilation, and drainage. Mr. A. Lorne Campbell gave a very able criticism, which was followed by an interesting debate, in which various members took part. The report on Design Competitions, Nos. 2 and 3, were read, the three placed first for the "Highland Parish Church" being "The Ludger," "Glenlivet," and "Tendimus"; and for the "Lych-Gate": "Tendimus," "The Ludger," and "I ride thro'."

Glasgow Archæological Society.—At the annual meeting of the members of this Society, held in the rooms of the Society, 207, Bath Street, Glasgow, Dr. David Murray, the President, presided. Mr. W. G. Black, Hon. Secretary, read the annual report, which stated that steps were being taken which might lead to an arrangement for the effectual preservation of some of the most interesting sections of the Antonine Wall, and also thought it worthy of mention that, by the terms of a clause in the Light Railways Act of 1896, objections to a light railway, on the ground that it would destroy or injure any building or other object of historical interest, or would injuriously affect any natural scenery, were to be considered by the Board of Trade. The Chairman, in moving the adoption of the report, said that, if rumour were right, application would shortly be made for powers to carry a light railway through one of the most picturesque portions of the country, and they might in that case have an opportunity of testing the value of the clause of the Light Railways Act referred to. The report was adopted. Mr. Hutchison submitted the annual financial statement. Office-bearers were elected, and the proceedings concluded with an interesting paper by Mr. George Neilson, F.S.A., Scot., on the "Annals of the Solway."

West of Scotland Iron and Steel Institute.—At the second meeting of the session of the West of Scotland Iron and Steel Institute, Professor A. H. Sexton delivered his presidential address. After sketching what he thought ought to be the aims of the Institute, he spoke of the necessity of more technical education. The County Councils were, he said, frittering away money on what could do very little good. All the branches of engineering were clamouring for their share; the elementary and secondary schools were calling for more, and the result seemed likely to be that the iron and steel industry, the most important in the West of Scotland, would be left out in the cold. What they wanted in Glasgow was a well-organised school of metallurgy and mining, in which there should be a professor, as at Freiburg and Berlin, giving his entire attention to iron and steel, and another taking general metallurgy, and also a professor of mining, and of course well-equipped laboratories. In the Andersonian College they had a nucleus in which that scheme could be developed, but that was all, for in staff and equipment it was infinitely behind what it ought to be. The practical question was how the scheme could be carried out. Sheffield gave the answer. Sheffield Technical School depended for its existence and support on the practical liberality of the Sheffield steel makers. Surely the Glasgow iron and steel masters were as liberal-minded and as far-seeing as those of Sheffield, and if they would come forward the scheme would soon be an accomplished fact, and Glasgow would be able to take its place at the head of metallurgical education in the country.

Birmingham Master Builders' Association.—The annual meeting of the Birmingham Master Builder's Association was held last week. The report stated that, at the commencement of the year, the notices which had been received from the carpenters and labourers were dealt with. The carpenters met the representatives of the association in conciliation, and the points at issue were promptly settled. The negotiations with the labourers were not so satisfactory, demands being made by the men which could not be acceded to, and the meetings ended without any settlement being arrived at. Ultimately, as the result of correspondence, rules were signed, and they had been in force since April 1. The Standing Committee had been the means of clearing up several minor disputes, though in one case no settlement was arrived at, two branches of the trade claiming the right to do the same work—namely, tile-laying. Notices of alteration in the working rules had been received from the carpenters, stonemasons, bricklayers, plasterers, plumbers, and labourers. The balance-sheet showed the receipts for the year to be £125 10s. 10d., which, with the balance from the previous year, made a total of £222 2s. 4d. The expenditure amounted to £82 3s. 3d., leaving a balance in hand of £139 19s. 1d. The report was adopted. At the annual dinner, held subsequently, Mr. Parkes, M.P., said, the prosperity of a nation or a town was judged by the character of its buildings. In the present utilitarian age they were perhaps known more by the multiplicity of their buildings rather than the character of them, although the general character of them now was decidedly of a higher class than in any preceding age. All great works, such as building, poetry, painting, and statuary must have some great inspiring influence behind them, and unless there was that influence they would fail in the production of any really great work which was to stand the test of time. In a town like Birmingham it was their duty to erect buildings, and especially municipal buildings, not only of an Artistic type, but of such a character that they would stand the test of time. The present prosperity of Birmingham was at the high-water mark, and it might be said that Birmingham was now more prosperous than at any previous period in its history. That prosperity was concurrent with the erection of the public buildings. With the exception of the Town Hall, nearly all the important buildings were erected during the last thirty years. Most of them were of a very Artistic type, and some of them were very durable. It was satisfactory to know that, as a rule, they were built by Birmingham men, and it was equally satisfactory to know that there were no better builders in the country than were to be found in Birmingham.

Trade and Craft.

HAYWARD BROTHERS AND ECKSTEIN, LIMITED.

We understand that Mr. D. W. M'Innes has joined this company as a Director, and this cannot fail to add greatly to the already high position this firm holds in the engineering world. Mr. M'Innes has for the past twelve years occupied the important position of London Manager to the Carron Company, Upper Thames Street. We have on many occasions spoken in terms of high commendation of the patent appliances of Messrs. Hayward Brothers and Eckstein, which include their "semi-prism" pavement lights, patent fireproof steel lath (which is in use at many London theatres), the "Stafford" radiators, &c.

THE DRAINAGE OF A HOUSE.

In the Queen's Bench Division, before Mr. Justice Cave and a special jury, an action was brought by Mrs. Fanny Bazzoni, a widow, against Mr. Robert Pledge Notley, Architect and Surveyor, to recover damages for alleged misrepresentations with respect to the drainage of a house. Defendant denied the misrepresentations. The plaintiff's case was that in January, 1895, she took a house known as Warwick Lodge, Clapham Park, upon the representation of defendant that the drains of the house were comparatively new, and that they were in every way satisfactory. She entered into occupation at the half-quarter, and in March two of her servants became ill with sore throats. Later, the plaintiff, her two daughters, and a sister became ill in a similar way, and consequently a builder was called in to examine the drains. The builder suggested certain alterations, which were executed. The bad smells continued, and the sanitary inspector, who was called in, requested the defendant to execute further alterations. Plaintiff said there was a delay in the execution of these works, and she was obliged to send her daughters away to school. In consequence of the state of the drains she had had to pay doctors' fees and other expenses to the extent of £75. Defendant denied that he had made any misrepresentations. The drains of the house, he said, were reconstructed in 1891, the Norman Shaw system being adopted. The state of the drains in 1895 was due, not to any defect in the drains, but to the fact that they had not been properly flushed with water. Shortly after the plaintiff took possession of the house there was a severe frost, and in consequence water was not so plentiful. The alterations suggested by the sanitary inspector were not in his opinion necessary. The jury found a verdict for the plaintiff, and assessed the damages at £40. Judgment with costs.

THE COST OF TUNNELS.

A report just published relative to the comparative cost of the world's four great tunnels, places the cost of the Hoosac Tunnel, in the United States, at £76 a foot; the Mont Cenis Tunnel, the next in date, cost £71; the St. Gothard cost £46; and the Arlberg, the latest in date, £31. This rapid decrease in cost, within comparatively few years, is an indication of the great progress in mechanical methods and improvement in rock excavating tools. A still more striking result exists in the case of a tunnel through the Cascade Mountains, which was completed at the cost of £24 a foot.

THE SLATE SUPPLY.

The continuance of the strike at the Bangor Penrhyn Quarries has possibly occasioned some misunderstanding as to the possibility of supplying the requirements of Architects, contractors and others, an impression appearing to prevail that Welsh slates are almost unobtainable. This is not so, although there is a considerable shortage in supplies. The Dinorwic Bangor Quarries are working as usual, and supplying the more pressing demands on the slate market; Messrs. Roberts, Adlard & Co., and other merchants have stocks both landed and afloat. The Portmadoc Quarries are supporting the trade as freely as supplies permit, but the diminished output in Wales has had the usual result of increasing the cost of slates.

IRON ORE IN SIBERIA.

The Siberian papers announce that an unusually valuable discovery of iron ore has just been made in the neighbourhood of Yeneseisk, in Eastern Siberia. The ore discovered in that district is of remarkable purity, and is said to be even superior to the Swedish in quality. The ore obtained by the aborigines is of three kinds—white, yellow, and black. The best kind is the first mentioned, and the worst the last. Several Englishmen who have visited the ore-yielding district are of opinion that the steel which may be made from Yeneseisk ore cannot be surpassed anywhere.

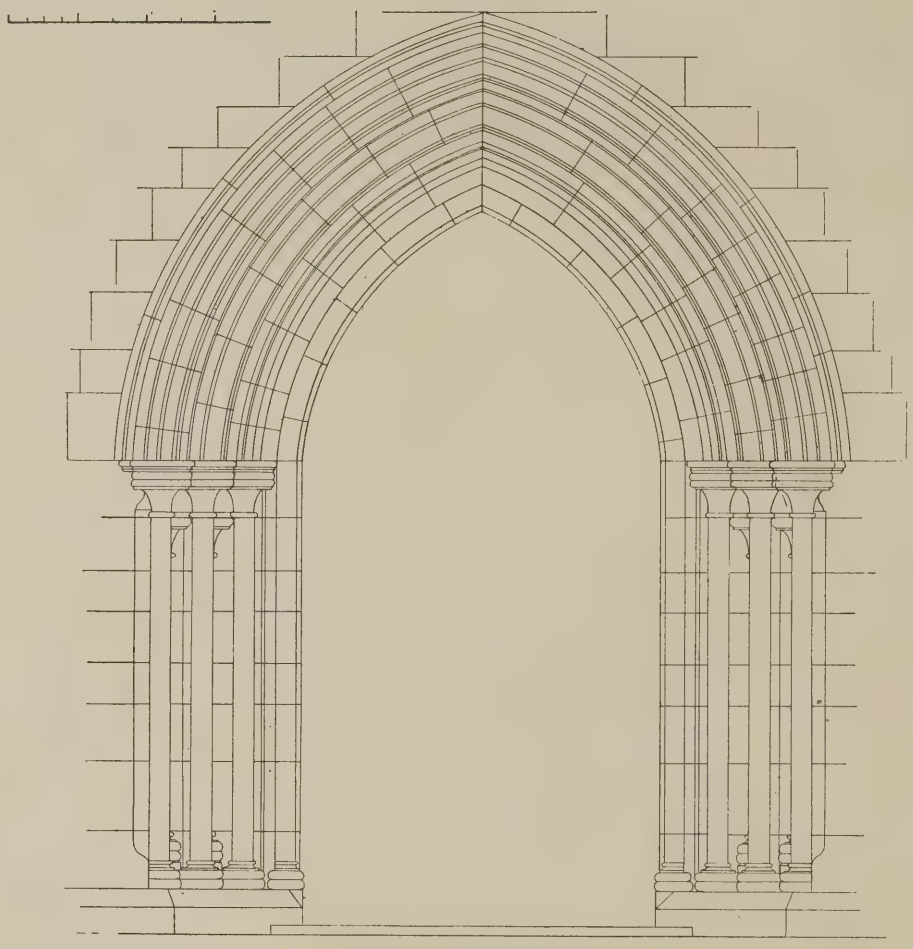
A NOVEL MATERIAL.

An ingenious novelty in the way of a material to be used for making flooring, wainscotting, &c., has recently been invented in Germany. It is a special preparation of paper pulp sold in the form of a dry powder, which, when desired to be used, is mixed with water like ordinary cement, and spread over the surface which it is intended to cover. It is claimed for it that it not only dries quickly, but that it can be stained or tinted with most colours, thus adapting it for parqueterie work. It presents an additional advantage, according to the claims of the inventor, in that it can be smoothed with a plane as if it were wood, while the method of laying it insures not only that no crevices will be left to harbour dirt and germs, but that its employment tends to deaden noise of feet. It possesses a high degree of electricity and considerable durability, as well as the by no means insignificant advantage of being very incombustible.

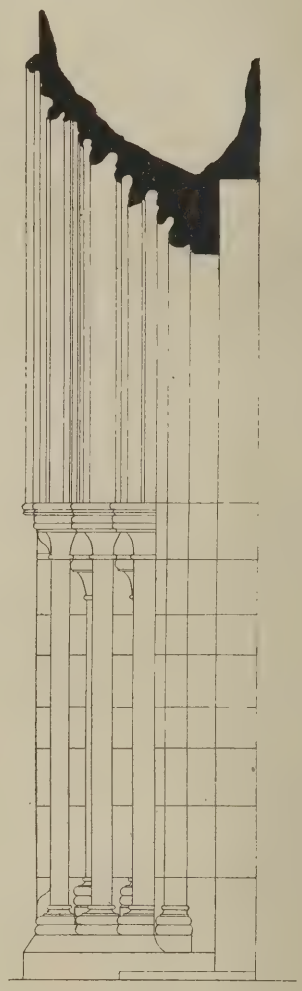
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Early English Doorway.

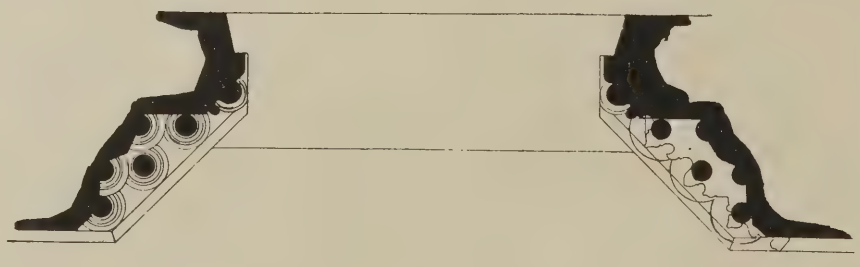
St Martin's Church (south door) Leicester.



Elevation.



Section.



Plan.

MEASURED AND DRAWN BY J. CECIL BAINES.



THE SPIRE OF ST. GEORGE'S, HANOVER SQUARE, FROM A SKETCH BY BROOK KITCHIN.

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 96. **Wed., December 9, 1896.**

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The Vacant Place : A Special Word to our Readers.

THIS heading, apparently so pathetic, is, as a matter of fact, just the reverse. In truth, we never thought of a title in a gayer frame of mind. Gaiety, indeed, as our readers have doubtless discovered long since, is one of the leading characteristics of this Journal and its staff, and it is, moreover, a gaiety that is never dimmed. To offend against *that* genial spirit is the one unpardonable sin of the office. It is not permitted on any pretence ; and, to be quite confidential, no one, from the smallest office-boy upwards, ever pretends. The immediate cause for our present merriment, however, to come to the point of an apparently pathetic heading, is the pleasant position, *the vacant place*, to which our new Magazine, the Architectural Review, has attained at one leap. By a consensus of current criticism, which is quite as remarkable as it is unanimous and rare, we have been voted to a place practically without a rival in modern Artistic illustration and literature. It is given to few Magazines, surely, to accomplish that with the first number! We accept gratefully the position together with its responsibilities. We are there not (mark this) entirely by our own exertions, great as they have been, but by the votes, firstly, of our friends the Artists, and, secondly, by outside Press opinions ; by a series of voting papers (counted by the hundreds) amongst which there is never a blank, never an adverse word. We have been told we are practically without a rival ; this is in the main perfectly true, because our Review, appealing as it does principally to the Architectural public, does not compete, except in a subsidiary and friendly way, with such journals as The Studio and The Artist, for which we have nothing but the kindliest feelings and the warmest admiration. In proof of which (and by the way) we heartily commend to our readers the two recent special numbers of each ; the former containing an appreciation of Robert Louis Stevenson as an illustrator (by Joseph Pennell), and the other of Frederick Sandys, an interesting article by Mrs. Esther Wood.



NORMAN DOORWAY, BISHOP STEIGNTON. FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

But to come back to "the Vacant Place." We have nothing in common, and are, therefore, not rivals in any sense with the present professional or trade journals. Our ideas and our aims are higher, and therefore entirely different, except, of course, as regards this our weekly issue, which has met the professional papers on their own grounds with, we cheerfully admit, a most gratifying result to ourselves. And in this respect it is worth while pointing out that our terms of subscription per month, compared with our contemporaries, is exactly in the proportion as 10 is to 16. That is to say, for a monthly subscription of *tenpence* we provide a weekly paper, on which the best known Architectural writers and illustrators of the day are engaged, together with an *edition de luxe* every *four* weeks, which is admittedly without a rival as aforesaid. For the subscription of more than a third as much again our contemporaries have nothing to give but their *one* weekly issue! But to return to the Review. We wish, in the first place, to most heartily thank all those who have given us such warm and enthusiastic support from the first, and without whose united aid, we frankly confess, we should not to-day find ourselves so pleasantly situated. Nor should we be able to contemplate our future prospects in quite so calm and peaceful a manner were it not for the repeated promises we have received of their active help and practical assistance. Their names are, of course, well known to all, and are to be found "writ large" in the many "press opinions" and in the pages of the new Magazine. These names are, in themselves, a sufficient guarantee for future assured success. We have received so many letters of kind and cordial congratulation upon our endeavours that it is a physical impossibility to reply to all separately. We take, therefore, this opportunity of replying generally, and thanking all those of our readers who have taken the trouble to express their opinion and approval. We wish to say, too, in answer to many enquiries, that so far from this our first number being the *best*, we are convinced that at the end of the first volume it will be unanimously voted the *worst*. We shall

improve and amend as we go along. To which end we therefore cordially ask for the candid opinions of our friends the critics.

AN INIGO JONES MEMORIAL.

WITH reference to the fact that the burying-place of Inigo Jones is at this day without a memorial of the great Architect, the City Press says that Inigo Jones was essentially a child of this City. He was born in 1573 within the confines of the parish of St. Bartholomew-the-Less, and christened at the font of his Parish Church on July 19th in that year. The indefatigable antiquary, Peter Cunningham, has elicited from the will of Inigo Jones's father, who is believed to have come from Wales, the fact that before the age of twenty-four Inigo's home was in the parish of St. Benet, Paul's Wharf, where his father was buried in 1597, and where the Architect himself received sepulture. This very Church has been handed over to the Welsh in London. Inigo's family circumstances were not affluent, but, either by the aid of a wealthy patron or otherwise, he made that study of ancient classic Architecture in Italy which may be thanked for much of our City classic Architecture to-day. His first work in England appears to have been in connexion with the Court mosques of the Queen of James I., and in these Inigo had Ben Jonson as a collaborator. In 1613 he made a second journey to Italy. Wherever he went he carried with, him, and annotated, his copy of "Palladio," which is still preserved at Worcester College, Oxford. Two years later he returned to England to take possession of the office of "Surveyor of the Works," the reversion of which had been granted to him by James I. He had no lack of work in connexion with the royal palaces and other places. In 1620 he made ready Ely House, in Holborn, for the reception of the Spanish Ambassador. His

FIRST GREAT WORK,

and also his masterpiece, was the rebuilding of the banqueting chamber at Whitehall in 1619-22. Lindsey House, in Lincoln's Inn Fields, built for the Earl of Lindsey, still stands as a mark of Inigo's genius at this time. In the same neighbourhood is a yet greater memorial of him—the Chapel of Lincoln's Inn, built 1618-1623. This is a good example of classic details applied to a Gothic form. The now destroyed Chapel of the Infanta, at Somerset House, and the beautiful watergate which adorns the lower end of Buckingham Street, Strand, both belong to this period. In 1630 was built the exquisite Church of St. Katherine Cree, which adorns Leadenhall Street, and forms a connecting link between the old Gothic and the latter classical or Palladian styles. In 1633 was erected St. Alban's, Wood Street, another Classico-Gothic building; and the present Church, although rebuilt by Wren after the Great Fire, is thought by Mr. G. H. Birch to retain not only the style, but even much of the work of the former building. A trustworthy, or at least a probable, tradition attributes both these Churches to Inigo Jones's designs. The old Church of St. Paul's, Covent Garden, now rebuilt, was erected by Inigo in 1632. The "Queen's House" at Greenwich, now the Naval School, was completed in 1635. But the work on which Inigo Jones regarded his fame as depending was the

MAGNIFICENT PORTICO

added by him to the western end of St. Paul's. The work of restoring the Cathedral was commenced prior to 1633. The restored western end and the portico are too well known to need description. The entire end measured 161 feet long by 162 feet high; the style being rusticated Corinthian. This front, cumbrous but picturesque, served as a background for the noble portico, whose length was 120 feet, and height 66 feet, and whose stately columns numbered fourteen. For grandeur and extent the portico will ever bear witness to the Architect's taste and skill. That it was not a "magnificent mistake," as those have urged who have dwelt upon the incongruity of adding a classic portico to a Gothic Cathedral, may be contended from the probability that this work was meant to be a first instalment of a rebuilt and classic St. Paul's. But, like the plans for Whitehall, the restoration of the Cathedral was interrupted by the Civil War, and it is said that in his last days the great Architect was to be seen wandering sorrow-stricken in the vicinity of his uncompleted works in Westminster and the City. On June 21st, 1652, at the age of 79, Inigo Jones died at Somerset House, "of grief, misfortune, and old age." Five days later he was buried in the chancel of St. Benet, Paul's Wharf, where a monument was erected on the north wall of the Church. It is a matter for regret that Sir Christopher Wren, when rebuilding St. Benet's after the Fire of 1666, did not take steps to re-erect a tomb to the great Architect whose work he was himself continuing in London.

Views and Reviews.

COTTAGES AND COUNTRY BUILDINGS.

Designed by THOMAS W. CUTLER, F.R.I.B.A.

MR. CUTLER has, in this well-got-up and serviceable volume, shown evidence of the obligation laid on the successful designer in any of the numerous branches of Architecture, to place his methods or their results on record for the benefit, firstly, of his brethren, and, secondly, of the outside world. He has not given us a Preface, preferring no doubt that his book should stand for what it is worth on its own merits; and hence we do not know his motives, but no doubt they are as stated above, being much the same as Professor Kerr's, in his fine epoch-making work, The Gentleman's House.

The present book gives 27 different subjects, shown on 44 plates. It comprises cottages for the seaside, cottages for bailiffs and gardeners, cottages for labourers (singly and in groups of two, three, and four), a village shop, a village school, stables and farm buildings of various sizes, entrance lodges for park and cemetery, country houses of various degrees of pretension, a parsonage, a bungalow, a shooting box, a hospital, and a convalescent home—a collection of subjects which should satisfy the most exacting of requirements.

The work will be useful to estate-owners who desire to provide dwellings for their labourers, as well as to estate-agents who are considering the development of "eligible building land." We do not care for the appeals to the desire for cheapness that appear so often in the book, since every steward or agent knows, without being told, that "they could be built cheaper if necessary," or "the design might be built of simpler materials and then would cost less," or "it could be built much cheaper if desired."

The "notes" preceding the plates are very good and suggestive; and the designs are simple and common-sense, and have a suitable country-like air. The author is best in those intended or executed in what are considered as more especially *country materials*, e.g. tile-hanging, half-timber work, and rough-cast work, which are so pleasant in the landscape and so suggestive of cosinesss and comfort to the English mind. The designs vary in practical merit, but some of them are very well planned, and, from the point of view of the indweller, at any rate, the plan enters largely into the requirements of comfort. The doors are not shown on the small plans; the hanging is consequently not always clear. The positions of the bedsteads in the bedrooms would have been useful if shown on the plan. The titles, if printed on the plates, would have saved reference. The notice at the end of book, that the designs "cannot be copied without the consent of the author," carries a moral with it.

COTTAGES AND COUNTRY BUILDINGS, Designed by Thomas W. Cutler, F.R.I.B.A., &c. London: Horace Cox.

In the recent limited competition for Church Schools, St. George's, Hanover Square, the Assessor, Mr. J. Macvicar Anderson, F.R.I.B.A., has placed first the plans of Mr. Philip Appleby Robson, of Palace Chambers, Westminster. The school is for infants, junior mixed, boys and girls, and is estimated to cost £10,450.

BELFAST COMPETITION.

EXTRAORDINARY REVELATIONS.

AT a recent meeting of the Belfast Corporation, a debate arose on a motion for the adoption of the minutes of the meeting held the previous day respecting the plans for the new City Hall. Some extraordinary facts were disclosed, whereby it appeared that certain members of the Corporation desired to override the decision of Mr. Waterhouse and Mr. J. C. Bretland, city surveyor of Belfast, who had been appointed umpires on the plans. The plans selected by Messrs. Waterhouse and Bretland were No. 30, No. 42, and No. 43. The first-mentioned, which obtained 18 votes at Monday's meeting, was from Mr. James Millar, 223, West George Street, Glasgow; the second was from a London firm; and the third was from Messrs. Malcom Stark and Rowntree, 329, West George Street, Glasgow. The Corporation

ADDED TWO MORE PLANS,

one being No. 22, from Mr. Graeme-Watt, Belfast, and the other being "Bogus." Councillor Masterton considered that some of the parties who had sent in plans had been unfairly treated, and treated in a manner he had never known of any plans sent in by the Corporation. In the first place, they appointed an assessor—who, together with their own burgh surveyor, was to select three plans, to enlighten them, and get them proper plans. The authors of those three plans were to be invited to enter into the final competition. The plans were selected, and one of those they should adopt. There were no names to be given, but those three names were known. It was found that some plans were not there which ought to be there. That was the impression of the outside public, and it was his. It was the first time in this Corporation he had to make an insinuation or charge. All he wanted and sought for was fair play. Two other plans were brought in by the Corporation. What were they? One of them was very fair, but the other no one would look at. He candidly believed the fifth was brought in as a cloak for the fourth. For one of these plans

THE NAME WAS WELL KNOWN.

It had been stated by a councillor that a plan had been sent in by a certain party. The name of that gentleman must have come either from the Town Hall or from his own office. That name obtained circulation and was known. Taking all these circumstances into consideration, he said that these five plans should not be laid before the Council, but that the three should be submitted, and three only. It was exceedingly bad treatment to the three gentlemen remaining. He regretted that one of the names had become known. He hoped that the Corporation would upset this resolution and vote against it. Councillor Young also condemned the methods which had been taken to introduce the local man into the final. One of the terms of the competition prohibited canvassing. He put it to the conscience of those who plumped for Mr. Watt's plan—could they conscientiously vote to-day and say that they were not canvassed? Was it legal for those gentlemen with the conditions in view to open the sealed envelopes attached to the three plans selected by Mr. Waterhouse? And if it was illegal to do so the whole thing would have to be gone into again and submitted to the Council. If they had not opened the envelope attached to those plans they would have been the only three plans submitted to the Council on Monday to send over to Mr. Waterhouse for his selection. They would not have known that one or other of those plans was not by a Belfast Architect. What, he would ask, were they giving £300 to Mr. Waterhouse for? Councillor Harrison said if the two names had been introduced after the names of the three successful competitors, then for his part he thought Councillor Young's speech was accurate, and he retracted his vote of the previous day. After further discussion, Alderman Sir James Haslett moved that the matter be referred back to the Council in committee for further consideration. Alderman Henderson seconded the resolution. After some further discussion the amendment was carried. The matter will consequently come up again in committee.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

Gothic Foliage Carving.*

JOHN L. MYRES, M.A., F.S.A.

THE study of Gothic Architecture, and of the subordinate Arts of Design which accompany, complete, and embellish it, is made peculiarly interesting and instructive by the fact that in this instance the materials are abundantly forthcoming for the study of the whole period during which the new style was coming into being, and during which it was moulding and remodelling, as every great style must, in accordance with its own canons, the motives and the combinations, however antiquated and degenerate, which it found ready to its hand. In the case of the Architectural styles of classical Greece, still more in the case of Oriental and barbaric styles almost without exception, these materials have either wholly disappeared, or are at best so fragmentary that their interpretation will probably always remain a matter of conjecture, however plausible the result may be. In the case of Gothic Architecture, on the other hand, with a few notable exceptions which may be discussed apart, the evidence is very fairly complete, even in spite of great recognisable losses, just for the period in which the decadence and barbarisation of the later Romanesque Art is arrested, almost instantaneously, by the first manifestations of a new spirit; so that from a chronological point, which may be determined with some accuracy, development of the last remnants of the old tradition sets in upon new lines towards a new and wholly different ideal.

But in order to estimate the conversion which



ABACUS. NORMAN STYLE.



CHAPTER HOUSE, DURHAM. FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

results from this creative inspiration, it is necessary to sketch first, briefly, the history of the materials upon which the transfiguration was wrought out. And for this purpose no nearer starting point is satisfactory than that of the origination—for a new creation this was—of the so-called Corinthian capital at the end of the fifth, or the beginning of the fourth century B.C. For the Corinthian capital was the first definite and intentional attempt in European civilisation to adopt carved foliage ornament to an integral member of a building. The Corinthian capital, though its proportions remain more fixed throughout its whole history than those of either of the earlier styles of Greek Architecture, lends itself, in its very nature, to infinitely more varied treatment in detail than they. And it is particularly to be observed that the composite style, though its characteristic developments are to be ascribed to the tasteless and barbaric ostentation of a later age, finds its first suggestion in the earliest Corinthian capitals which have been preserved. Even in the faultless examples from the Tholos of Epidauros the intention of the upward springing scrolls of the acanthus stalks in the angles, and of the delicate flower in the centre of each face, is already clear, and is itself with much probability to be explained as a reminiscence of the volute scheme of the Ionic style.

From the beginning, therefore, and quite clearly from the third century onwards, the struggle between the component elements of this itself essentially composite form, leads to the separation of two distinct types; that in which the basal leaves of the acanthus tend to overwhelm the scrolled stems which surmount them; and that in which exaggerated scrolls, angular and lateral, tend to dwarf almost out of existence the acanthus crown from which they spring.

In Byzantine, and still more in Romanesque foliage capitals the frequent reduction and again the frequent exaggeration of the total height of the capital, makes this struggle and this eventual separation more decisive; and the low square abacus, with the angle volutes and intermediate flower ornaments sheltered beneath it, and more definitely applied to support it, becomes contrasted with a taller and more cylindrical style of capital, in which the original four-squareness is minimised at the expense of the abacus and scrolls, or is disguised by a swelling of the lower part, while the investment of acanthus foliage, often still preserving its original double arrangement of outer and inner leaves, becomes the dominant feature of the conception. This double coronal of leaves persists into the decorated Gothic of Belgium and parts of the north of France, but is not often found in English examples. How, in the west particularly, these two types seem to have co-existed and inter-acted upon one another may best be seen in such large collections of Architectural fragments as that in the museum at Cologne, to take a fairly accessible example. Our own collection of casts hardly begins to be of value till a later time, though we have one fine example of the low, square, volute capital, with accessory foliage, in which the old volutes at the top have almost gone, while a new pair have been added close to the neck, from a Byzantine building.

I have dwelt at length upon the employment of foliage in *capitals*, because it is in this department that our own series is most complete and instructive; but it must not be supposed that this is our only, or even our main, source of evidence for the treatment of foliage during the long age of decadence. The great collection of cases of fictile ivories which is now being arranged in the mediæval room of the Ashmolean Museum, illustrates amply the important class of foliage ornaments which were used during the same decadence, in more or less elaborate mouldings and borders. Here again it is necessary to go back to the architypal Greek motives, and to note that a large number of the most effective and most variable motives consist of alternate pairs, either of different elements, like the lotos and palmette, or of the same element, set alternately upwards and downwards, the basal points being connected by a sinuous band which is commonly treated as their actual stalk. The fact that in all periods the same foliage ornament is commonly repeated on the wall cornice, and on the capitals of pilasters, and so on the intermediate columns of an arcade, should also be noted, as explaining the occurrence of such alternating motives on foliage capitals, especially on the

* A paper read before the Oxford Architectural and Historical Society, as an introduction to the study of the newly-arranged collection of Architectural casts in the Ashmolean Museum.

lower part, and on the rich floral cornices of later decorated and perpendicular buildings. Among the latter, also, *alternate* motives and up-and-down series with a sinuous stalk begin to be characteristic again.

The extent of the degradation at the time when Gothic carving may fairly be said to begin may be estimated from the fact that it is even probable that such wholly unplant-like motives as the zigzag, billet, and dog-tooth mouldings, the beak-heads and spiral beadings of arches and shafts, and the monstrous faces and animals which adorn the angles of Norman cushion capitals, may be



DEDICATION CROSS, EXETER.

traceable back through an almost unbroken series of intermediate substitutions to their floral prototypes in earlier Romanesque Architecture; while such strictly floral ornament as does occur on cushion capitals and wall or arch mouldings is in so low relief, and frequently so rudely modelled, that much of it seems to have been inspired rather by painted than by sculptured ornamentation. How closely, on the other hand, occasional examples recall very much earlier types may be seen in many continental examples, such as the elaborate capitals from Soissons, and, nearer home, by the specimen from St. Aldune's Church at Durham.

The degenerate, though often most elaborate ornament of the convex capital, however, may be left practically out of account in dealing with the beginnings of Gothic foliage capitals; for the latter, almost without exception, take their rise from the concave capital with angular volutes, and more or less unrecognisable acanthus leaves and flowerets upon the faces between them.

The change is first appreciable, naturally, in the neighbourhood of the corner-volutes, and is heralded by a growing fulness and swollen appearance of every surface of the design, which comes into marked contrast with the meagre, metallic rigidity, concave forms, and emphatic edges of the immediately preceding period. This very roundness produces in many cases an impression of careless, confused, and unfinished work; but the change from the mechanical accuracy of the old tradition to the spontaneous and often wayward struggle towards life of the new work is unmistakeable. Especially noteworthy is the inclination to give up exact symmetry of composition in favour of a harmony of proportion between more or less heterogeneous equivalents; though, so long as the design of a capital is confined by the four-square limits of a Norman abacus, any real freedom is almost out of the question.

This restriction once removed, however, nothing remained to regulate the disposition of the now fully vegetable components of the ornamental crown, and accordingly the earliest early English foliage exhibits an exaggerated sparseness and dishevelment, of which the south door of Bicester Church is a fair example. True to their immediate derivation from the bracket-like volutes under the abacus, the free fronds cluster round the upper part of the capital, overhanging, but leaving exposed, the now longer and slenderer neck of the capital.

(To be concluded.)

COLOUR IN ARCHITECTURE.

By HALSEY RICARDO.

COLOUR demands large spaces on which to realise itself; in small patches and spots it seems to irritate us. Take, for instance, the coloured window-boxes and blinds in a street—they might as well not be there at all. In considering a scheme for the colouring of a city, one must distinguish between those places where we can employ Nature's palette and where we must use man's. In our parks, squares, and open spaces, we can use trees, turf, and flowers, but in our streets, where the only colour that is not our own making or colouring is the narrow strip of sky above our heads, we must look to the buildings themselves to supply us with colour. This brings up before us the question, on what principle of the application of colour are we to work? The answer is, I think, that just as the city, in its disposition of its forms and features, represents the corporate life of its citizens, so the colouring should be an indication of its corporate life, *i.e.*, the colouring in the main should be heraldic. This has already been felt and acted upon in the instances where colour has been employed by bodies of men, such as vestries, parish councils, railway companies, and the State. In London, each parish colours its lamp-posts in the parish colours, the dust and water-carts carry the proper bearings and legends. Throughout Great Britain the scarlet is the proper distinction of the Post Office; on the sea-coast the eye is gladdened and the landscape relieved by the black and white heraldry of the coastguard stations. If this were carried out systematically a kind of classification of buildings would grow up, each group denoted by some special colour treatment. State buildings, such as the Parliament Houses, Law Courts, Mansion House, Galleries and Museums, let us suppose, would be built, as indeed they are, of stone with wide open spaces all round, and the colour would be supplied by means of broad streaks of turf and evergreens in formal shapes. Our Churches embody associations, tradition of feelings still extant, and so fulfilling the conditions required, they call for no special modification. Of old times, cities had walls, and the gates of the city were its pride. For us of the present day, walls have become unnecessary, and in the expansion of our modes of life, impossible. Our gates of to-day are the railway termini. The stations are, for the most part, marked by hotels, and as long as this system obtains, we must endure the obscuration of what might be an impressive and triumphal expression of our entry into town. But the stations with their cuttings, arches and passages might be lime-whited. That whole streets should be coloured, or built of coloured materials, is perhaps too much to ask for, at least at the beginning; but prominent houses, such as those at the corners of streets, having important information to give, should proclaim their position and knowledge by their easily recognizable colouring. Vestry-halls and public libraries should form the

LANDMARKS OF THEIR RESPECTIVE LOCALITIES.

Buildings of historic interest should also bear some signs that would mark them out of their surroundings, and not only bear an engraved plate; and public bodies such as County Councils and Vestries could do more in this direction than private enterprise. In Venice, when strolling through the market halls, we can discern the pillars and varied tints of the Bocca di Piazza, and then we forget all, for between these pillars there opens a great light, and in the midst of it, as we advance slowly, the vast tower of St. Mark's seems to lift itself visibly forth. We are all aware of the otherwise inexpressible emotions which good music makes in ourselves; or a fine, monumental building. Have we not really experienced the same emotions? There can be no doubt that colour is also to a great extent instrumental in producing certain emotions—and how universal is our hunger for colour? Consider what efforts we make to procure it. The flowers in our parks and window-boxes, the brilliant posters on our hoardings, the trees in our boulevards. For instance, our posters might just as well be done in black and white, but we resort to the more expensive process of colour printing. And the eye is so provident and resourceful. Out of very little actual colour it will construct fields of colour for itself, if only the distribution be helpful. It is quite sufficient, on a mass of black, to plant here and there pieces of blue in quite small quantities, and the whole area becomes one sea of sapphire. Consider for a moment what a valuable quality this is in a place like London. Will there ever come a time when one's pulse is no longer stirred by the notes of the post-horn? Think what we have spent in our galleries and museums, full of treasures of Art. In our city life we foster the impression that such things lie apart from our life, and are only curious examples of men's nightmares, not their aspirations. Art is now collected, shut up in cabinets, divorced from ordinary actual life, and consequently out of contact with it, to be indulged in or not, according as the humour may take us. Let us quit ourselves of such a view. Let us accept the vast accumulations of the past as a storehouse; not to draw therefrom specific examples for our present use, but treating them as the outcome of the spirit actuating the old masters who produced them, to draw from them something of their inspiration. In the picture of St. Mark's Square, at Venice, Gentile Bellini shows Venice as

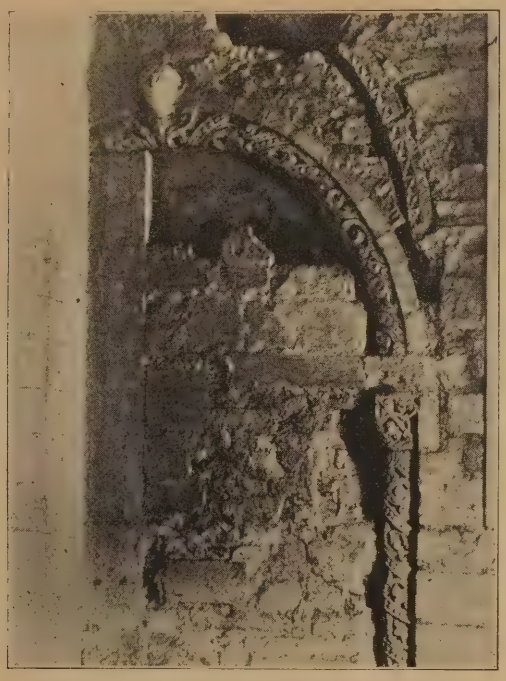


TRANSITIONAL CROSS AT KELLOE. FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

SUMPTUOUSLY COLOURED AND GILT.

Houses that were not encrusted with marbles and mosaic, sought colour and magnificence in fresco. Here, in England, our Abbeys and Cathedrals spared colour neither outside nor in. Our streets were full of colour, partly from the buildings themselves, but mainly from the gaily-dressed throngs in the lanes. The opulence and extravagance of colour mounted high, and then came the reaction. Colour faded from the Church, for the pictures were removed by the reformers, the stained windows knocked out, and the walls defaced. It fled from the streets, for the nobles who built palaces, built them of stone, and banished colour from their fronts, too wise to waste the painting of their finest Artists by exposure to the inclemencies of wind and rain, and too proud to content themselves with anything less than the masterpieces of painting. Then came the Great Fire, compelling

the use of stone and brick for city Architecture. It fled from the shelf, for the illuminated manuscript gave way to the painted book. To infuse more colour into the aspect of our cities seems so much everyone's wish, that we seem almost within distance of obtaining that measure of self-denial, co-operation, and public spirit necessary for the



NORMAN DOOR IN CLOISTERS, ELY CATHEDRAL.

success of any scheme of civic grandeur, and that we desire colour in our streets, the shop-fronts, and the advertisements on the hoardings, show. The revolt against the grey stucco-fronted house was in part due to the same feeling that followed on the Gothic revival, a desire to avoid anything that might savour of dishonesty in construction; but the red building arose more, I think, as a protest against the monotony of the colourlessness of our streets. Red brick and terra-cotta discolour, and coloured stones and marbles grow dim, and perish in shocking haste. It would seem as if no building material but what had a glass face to it, would be able to contend against the corrosion of the air of a manufacturing city. The use of

PERMANENT COLOURED BUILDING MATERIAL

would involve great changes in the treatment of our buildings. The mere fact that they are permanent comes as a shock, because, till now, we have been in the habit of calling upon time to aid us by softening here, blunting there, creating contrasts by the aid of dust and lichen, and in a measure harmonizing what was discordant, by blending the mass into a whole. We must give up this! But in a city, is the sacrifice a serious one? Before time has begun to spare any attention on the building, the grime and smoke of our fog-laden atmosphere have done their work of degradation, and in the quick passage of its decay we get a harmony, but, it is a harmony of filth. We might make use of colour in place of cornices, &c. It seems almost a pity to do so, but, on the other hand, we have advantages; all those shades and half-tones that we so carefully construct by means of cornice and pillar, architraves and mouldings, we can supply in colour, *i.e.*, we can get their equivalents in contrasts by variety of colour, and then, in our dark and narrow streets, what a boon to be relieved of the pressure of cornices, especially when they appear to be resting on huge areas of plate glass. Trafalgar Square might be converted into the finest open space in Europe. Having some of the statues placed differently, the basins could be decorated with blue tiles, so as to give the water a fringe of colour; we could have trees and shrubs all round, and some of the club-houses, &c., painted white. There is this amiable quality about whitewash, that when you have whitened the building you have coloured it. The white seems to borrow and steal from far and near. It takes blue from the sky, green from the trees, reds and russets from the walls, and sober shadings from the ground. I have spoken of it before, but I repeat it again, that if you use colour, you must use it in

LARGE MASSES.

I must add that it must be *gradated*. There are many methods of achieving that result, but gradated it must be. A piece of ungradated colour is a monstrosity. It does not exist in Nature and though we may oppose Nature in many of the things we do, we may not oppose her in that. Now, except with the paint-pot and machine-made tiles, it is easy to procure uniformity of tint. This appears, at first, to conflict with the use of whitewash, but it is not so really. The colours, lay them as carefully as you will, get gradated by reflected lights and colours impinging on them, but, as a rule, not in sufficient quantity to appease the eye, whereas white is able to accept all the external colour that is available that can satisfy the eye. The sea is blue, the earth is green, and there is plenty of it, but the flowers are few; but the wise application of colour is a matter which we may consider after we have agreed upon *the principle*. *Heraldry* had its roots in war, and from the strife of men against men, their passions, their abilities and hopes; all these furnished the superstructure of colour, charged with history and meaning, fenced round by law. The temple walls, the battlements, the ship's bulwarks, were gay with shields of heroes; from tower and spire waved the pennants and standards, placed there by man's hand, but kept there by man's blood. We, too, have our strife, but it is against want and disease, dirt and disorder. We fortify our city against these enemies, setting our houses in order, summoned by the pity of these latter days, and marshalled by the knowledge their science has given us. Strong and brave, let us go out to our fight, clothed with the distinction that colour can give us, and cheered by the *camaraderie* that such colour confers. When the day's work is done, there is the city, beautiful, firm, stately, and our home. Within its many walls are the hostages we have given to fortune, the treasures our forefathers fought to secure, the monuments to which we are the heirs. Is it too much to hope that some day our children may say to the stranger: "Walk about Zion, and go round about her: tell the towers thereof. Mark ye well her bulwarks, consider her palaces; that ye may tell it to the generation following"?

[The above is an abstract of Mr. Ricarlo's lecture at the Art and Crafts Society's meeting on Thursday last, at the close of which Mr. Walter Crane said, that as this was the last of the course of lectures, he wished to express his sincere thanks on behalf of his colleagues, as well as himself, for the interest shown in them, and for the genuine appreciation which all the lecturers had received. Various suggestions had been made by the different speakers, and it was to be hoped that, sooner or later, at least some of these suggestions would be carried out.]



HEXHAM. CAPITAL IN CHOIR (1200 A.D.). FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

"THE SKY-SCRAPER."

BY ALEX. BLACK.

SOME people may think that the sky-reaching structures of the new world might bear the inscription "Excelsior." Now Excelsior, when inspired by the noble motives typified in song, would then only be appropriate. But in practical building construction, we are not so much interested in the moral motives as in the highest development of the methods of using our material resources. Too often, indeed, we find the ignoble in intimate relation with the noble in this world, with corresponding ignoble results. Little as we are, compared with gigantic nature around us, and be-littling as are our actions, sometimes, nevertheless, like the ant, our achievements are the measure of our ability, mind, and not matter, is the controlling force. The earliest recorded high-reaching structure attempted by the ancients, was nearly 42 centuries ago, in the plains of Shinar, in Chaldea, when they proposed "to build a tower whose top may reach unto heaven." Though this first proposed tall building was frustrated, we are told, and we do not therefore know what the ultimate height of the Tower of Babel would have been, yet it is conjectured that the Tower of Belus, which was built afterwards upon the same site, was a similar structure, and its height was 156 feet. The epoch-making race heaven-ward, is interesting by the characteristic contrasts afforded in the difference of means, materials, and results. In the first epoch it was of burnt brick of seven stories or stages, surmounted by the tabernacle, and each successive story upwards was of dimininished area by being inset all round. The ascent was by inclined planes, from story to story, on one side, where the inset was widened for the purpose.

In the last epoch, the construction is of steel skeleton frame, clad with a veneering of brick terra-cotta, so-called "ashlar" slabs of stone, &c. There are other points of contrast; thus all the stories are continuously vertical throughout the total height of the building. In many cases the height is double that of the ancient structure, and the ascent is vertically to the top, by means of high-speed elevators (lifts). Though we may properly disapprove of such tall buildings in the streets of cities, as practically menacing the value of neigh-

bouring property, and the safety, health, and comfort of the public, they also expose the occupants to exceedingly grave risks, more especially those attending accidental fire and suffocating smoke. There is, however, some interest attaching to the methods of structural treatment of the problems presented in their design. They may indeed contain valuable structural suggestion and tried precedent, in adaptations of means for accomplishing purposes to be attained. Solutions of the kind might be taken advantage of in less tall buildings, where local conditions of site, &c., might require it.

Note.—The yet taller spires, towers, domes, minarets and such like structures, are, of course, here left out of consideration.

The characteristic description of building that has recently come to be prominently known throughout the world as the "sky-scraper," or "sky-raker," is the tall, rigid, steel skeleton structure, ranging from one dozen to two dozen and more stories. These skeleton structures have been built within the last 13 or 14 years in several cities of the United States of America. They originated ostensibly in Chicago, though New York, Philadelphia, and Minneapolis each claim priority of introduction of the masonry-embedded metal column and connected girder structure. This, however, is not the true typical embodiment of the peculiar principle of carrying the entire structure on a carefully balanced and braced metal skeleton frame, protected from fire, and supported throughout upon equilibriated column and pier foundations alone.

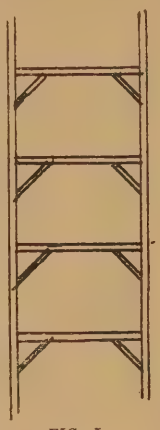


FIG. 1.

In Chicago, too, the necessities imposed by the unfavourable nature of the foundation soil, which consists of a thin, firm, clay crust, with an interstratum of boulder gravel called "hardpan," just above the level of Lake Michigan, required a special solution of the foundation problem. There is about 9 or 10 feet deep of "made ground" overlying the original land surface, and underlying the firm original crust is soft mud and "quicksand," about 60 feet to 100 feet depth. The present street level of Chicago is 14 feet above the lake surface; hence the depth for basement and foundation construction is very limited, and basement accommodation in Chicago is very valuable. The urgent foundation difficulty, upon the economical solution of which depended the realization of the "sky-scraper," was solved by the employment of concrete embedded steel rails or I beams. These, in tiers crossing each other, attained a rapidly wide-spreading footing area within a short height, and thereby utilized the utmost basement space available, when thus freed of cumbrous masonry foundations and walls. The true type of rigid skeleton steel structure was initiated in the "Home Insurance Building," in Chicago, in 1882-3. In the most perfect structural arrangements of the sky-scraper, steel-built columns or staunchions, clad in porous terra-cotta or other fireproof material, form the fenestral piers of the external walls, as well as the interior supports of the floors, roof, &c. The floor and transom, or spandrel girders, between the before-mentioned external piers, have all riveted connections with the columns. The systems of bracing extend vertically in a continuous series of panels throughout all the stories from the foundation upwards. There are four distinct systems of bracing adopted, the simplest of which is the iron-plate gusset and knee-bracing, consisting of web plate and angle iron flange placed in the lower angle between the columns or walls and the girder ends, as represented in Fig. 1. The next system is the portal or arch-bracing, consisting likewise of web plate and flange angle iron, as in Fig. 2. The web is

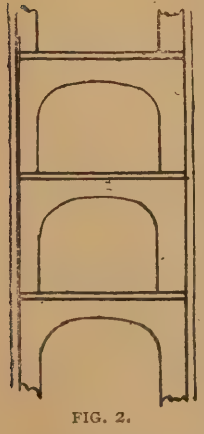


FIG. 2.

riveted to the column and to the floor beam by means of angle irons. The third and fourth systems of bracing consist of intersecting diagonal rods, as in Figs. 3 and 4. These rods are each furnished with a turnbuckle, so that the tension can be adjusted to any change occurring. This form is called indiscriminately sway-bracing and wind-bracing, though they have two different purposes, but both objects may be served by the same bracing. The sway-bracing is introduced simultaneously with the erection of the columns and girders, for the purpose, in the first instance, of staying or gripping the skeleton building to prevent the lateral swaying induced by the operations occurring in the erection; whereas wind-bracing, as the term literally implies, has for its object the resisting of the force of the wind acting externally upon the finished building. The second, third and fourth systems of bracing are usually introduced between two adjacent vertical tiers of columns. The panel points or axes of connection with the horizontal members are varied relatively to both tiers of columns, as shown in Figs. 3, 4 and 5. In the system represented by Fig. 3 the diagonal rods are bolted to the floor girders, which thus act as struts between the bracing panels. On the other hand, the diagonals in the system represented by Fig. 4 are bolted to special horizontal beam-struts, which thus admits of room for a doorway at the side, as shown in Fig. 4. Either of the systems represented by Figs. 3 and 4 may be combined in both single-story and double-story panels, as in Fig. 5. Their distance from the columns at the points of connection with the horizontal beams is regulated by the position and requirements of doorways. It will be observed that the least economical and efficient form of bracing is the angle-knee or gusset system, as it introduces large bending moments in the columns and girders. On the other hand, sway or diagonal rod bracing is the most economical and efficient, and is always preferred where it can be conveniently arranged so as not to interfere with doorways, passages, &c., in any of the numerous floors. The angle of the diagonal bracing rods with the column should not be less than 30°. The portal bracing is not without its advantages, as all parts of it are simultaneously strained either way the wind acts. It is very stiff and its economical construction will compare favourably with the sway-rod counter-bracing, considering the much greater choice which it allows for the disposition of doorways, corridors, passages and other internal arrangements, or future re-arrangements of the floor plans on all or any of the stories. This freedom of arrangement and future re-arrangement in any of the floors in the cases of most of the buildings of one to two dozen stories, which will necessarily differ in requirements from time to time, may prove a consideration of great value. All systems of bracing must be symmetrically situated in the building so as to avoid any tendency to twisting of the main frame. The bracing is required in two directions, that is, longitudinally as well as transversely of the building. When, however, the building is narrow and comparatively deep from front to rear, and having solid party or division walls between it and the adjoining buildings on either side which have sufficient stability to resist the horizontal thrust of wind force against the front or rear walls, then longitudinal bracing is omitted. Massive masonry is seldom introduced into any portion of the very high structures, at least in Chicago. In a few instances in New York and other American cities the foundation piers where they can be economically made to reach, by means of caissons, to the bed rock, are built of solid masonry or concrete.

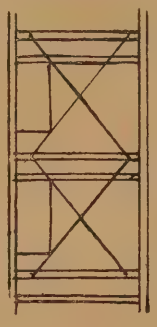


FIG. 3.



FIG. 4.

The limit of attainable height of these tall buildings has been a moot point with the curious. There are two important considerations, apart from those previously alluded to, which of themselves force an inevitable limit to the height. 1. The multiplication of stories requires—(*a*) an increased repetition of high-speed elevators in convenient locations, in order to accommodate the increased number of floors on the higher ascent. The gross elevator space, and the comparative size of the individual elevators varies in accordance with the nature and special requirements of the occupation of each building. The most convenient elevator accommodation for callers is that which provides for the least waiting by the greater number of smaller size elevators. In most of the office buildings, the disposition of the elevators is to group them around the semi-circular end of an elevator hall, convenient to the main entrance. But when the building extends the full depth between two parallel streets, the elevators are grouped convenient to each front, the larger group being at the more important street. Most of the buildings of twelve to sixteen stories on a site area ranging from about 6,000 to 10,000 square feet, have at least four to six elevators. In tall hotel buildings, etc., where a grand staircase is made a special Architectural feature, the elevators are grouped on each side of it. A lady's elevator is usually provided at a minor stairway. Separate "freight" elevators are likewise provided in a convenient place. (*b*) In addition to the encroaching elevator space is likewise that of enlarged area of interior light and air central courts, as well as a distribution of more and larger air wells and ventilating shafts, and enlarged furnace flues. 2. The second consideration which limits the height of tall buildings is the insufficient pressure of the city water supply to reach the higher stories, either for domestic or for fire protection purposes. This insufficiency necessitates the extra provision of special pumping machinery, tanks, and other accessories, cost of working and maintenance, etc.

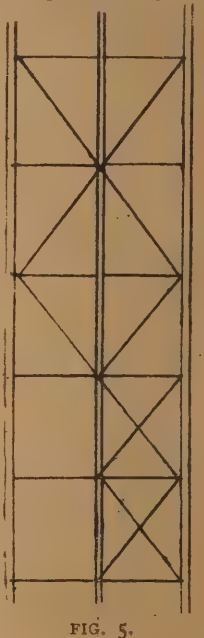


FIG. 5.

The external walls of skeleton buildings vary in materials as well as in characteristics, but they generally serve as a weather-proof Architectural encasing or "veneering" of the skeleton steel frame. In this way the requisite appearance in Architectural features, details, colour, play of light and shade, and other desirable external characteristics is attained. This encasing is accompanied by internal porous tile, brickwork or other furring, and thereby protection is afforded to the steel skeleton and intermediate steel framework against the weather, penetration of moisture, and likewise heat from external and internal sources. In tall buildings, a certain amount of structural weight is necessary in the walls, in addition to the fireproof floors and ceilings, and fireproofing to columns and girders, bressummers to impart stability against the excessive exposure to wind force. For this purpose, brickwork wall backing or spandrel filling, of twelve and sixteen inches thick, is carried on steel girders or bressummers between the fenestral pier columns at each floor level. The veneering and fireproof furring are secured to the steel skeleton by means of clamps, as well as by anchors hooking at the bed-joints, and made fast at their inner ends through holes punched in the intermediate metal framework, or to the brickwork backing or spandrel filling where more accessible. The holes for anchors in the metal framework must be punched at the manufacturing shop, and accordingly their position must be indicated in detail drawings. All internal walls, partitions, stair and elevator cases, etc., are constructed of hollow or porous tile, and are supported by systems of fireproofed girders and columns. As little wood as possible is used internally, even much of the usual wood finish, architraves, etc., are dispensed with. The height above the street level to the top of the coping of these buildings ranges between 200 and 386 ft., or more. The ground floor story ranges from 15 to 20 ft., the first and second stories 13 to 15 ft., the remaining stories about 12 to 13 ft. A fourteen-story building will usually range from 170 to 200 ft. high. A building of sixteen stories

200 to 250 ft., twenty stories about 275 to 300 or more feet above the street level; twenty-nine stories, 386 ft., is the greatest height yet attained in New York, though thirty-two stories is now proposed.

The Scientific American estimates that in New York, by her ninety-four tall buildings of eight stories and upwards, there has been added a floor area, including the eighth story and upwards, to her office accommodation, about 88 acres in the business district. By way of contrasting advantages of steel skeleton foundations, an actual case may be mentioned. A five-story masonry building imposed a load of over two tons per square foot upon the soft Chicago clay. This building was replaced by "The Fair" building, of sixteen stories high, which only imposed two-thirds of the unit weight of the masonry building upon the same soil, which obviated all appreciable subsidence. The problems and calculations involved in these structures are of a more exact and diverse character than is usually required for masonry buildings. The various story-loads, both structural or "dead" and "live," are determined and carried by the columns at the respective floor levels, and all the columns are numbered or lettered for distinction in loading. In order to facilitate the systematic distribution and computation of the various loads on each floor for the several columns, a "column-sheet" ruled form, with printed headings and items, is used. This sheet is divided across into sets of three equal spaces each, for the loads on each column, which are classified as "concentric," "eccentric," and "load on footings." Down the left side of the sheet, the names of the items under which the several parts are grouped are printed in order, beginning with the roof, and then following downwards with the successive stories. These items embrace "load from column above," "floor-loads" (dead-live), which includes weights of partitions, stairs, and all other structural parts imposed or abutting thereon, "masonry piers," "curtain walls," "spandrels," "elevators" (lifts), "water tanks" (in roof), "weight of story column" (fireproofed). To the total of these items is added the vertical load component induced by wind exposure. From the data thus obtained for each story the area (in square inches) corresponding to the resulting load for the requisite metal in the section of the column is computed for each separate story downwards. The cumulative story-loads are thus brought down to, and then to include the weight of, the footings, which gives their area, and accordingly, also, the unit load of the whole structure that is imposed upon the clay or other soil in question. It is obviously only by such systematic procedure that the true loads of buildings can be accurately computed with convenience, and the suitable safe sections of the metal, or other material, for the support of these loads can be properly determined. By similar systematic methods, the sections and dimensions of girders, and of bracing, and their connections and other structural parts and details, are separately determined for each story at a time, with their accumulating stresses downwards, without interruption to the final resultant stress which is transferred by the footings to the underlying soil. The Architect or engineer can only thus have some peace of mind when he can have confidence that the data on which he has based the scantlings and dimensions of his materials has been arrived at by systematic methods of computation.

At a special meeting of the Blackpool Town Council a resolution was adopted authorising the promotion of a Bill in Parliament, in conjunction with the Urban Councils of Lytham, Kirkham, St. Anne's, and Fleetwood, for the purpose of acquiring the Fylde Waterworks Company's undertaking. It is intimated that the amount required to acquire the undertaking will be between £600,000 and £650,000.

The tender of Messrs. Goddard, Massey, and Warner, of Nottingham, to supply and erect a four-cell refuse-destructor, including a chimney 150 ft., and other specified works at Upton for £4,196 10s., was accepted at a recent meeting of the Torquay Town Council, subject to the sanction of the Local Government Board, and it was decided that £2,146 be utilised for the erection of the buildings, fencing, making an inclined roadway, etc., this work to be carried out by contract or by the committee.

MR. H. H. STATHAM, ON STREET ARCHITECTURE, AT THE A.A.

[*Advanced proofs of the papers read at this Association, have always been supplied us by the courtesy of the Authors, but such courtesy not having been extended in this instance, we publish our own reporter's extracts.*—ED.]

MR. STATHAM prefaced his Address by stating that this was one of a series of lectures delivered at the commencement of the last session, but that it was a complete lecture in itself. He said, that it could not escape even the most superficial observer that our street Architecture was, to a great extent, remarkable only for its dullness and monotony, be it in the suburbs, with their stucco houses and porticos, or red brick villas with projecting ground floor windows, all built, more or less, according to one stereotyped pattern, or our residential quarters, interspersed here and there with high and expressionless blocks of flats, or in our main thoroughfares of the business quarters, there were, every now and again, some remarkable fronts to be seen, but, by virtue of their scarcity, they only served to emphasize the great want of variety. Of mediæval street Architecture we possessed very little, partly owing to the havoc wrought by the Great Fire, partly to the march of progress of the age. It was evident that what we wanted in the first place, was *variety*, which could be often achieved by much simpler means than might be imagined, and without, in any way, interfering with the modern beneficial tendency in street Architecture towards symmetry. There was not the slightest reason why all the houses in a street should be of a uniform height. The designer of a street front had, first of all, to take into consideration the width of the street, then the length of his site. This once done, he should make it his business to see how he might utilize the space at his disposal to the best advantage, so as to create a pleasing effect. There were more ways than one for treating a front: for instance, the horizontal and the vertical treatment. To give variety to the fronts in a street, the Architect should, for instance, strive to create a *contrast* in his front with the neighbouring ones. It was very desirable to concentrate the particular expression desired upon one part of the front only, be it horizontally, say, upon the upper floors, or vertically, say down the centre line; the latter mode was adaptable to all kinds of buildings. A building, ornamented with rich work inserted between two plain buildings, would give more effect to those of your neighbours also. A large window, carried all over the ground floor, would render a comparatively plain front rather attractive, and much could, for instance, be done by a judicious distribution of gables and windows. Another important item was to get

VARIETY OF OUTLINE

in a front. In a narrow street, effect such as can be seen can be given, by a broad treatment, to an otherwise exceedingly plain building; in a wider street the same building might be rendered attractive by means of a turret and such like additions. Of course, variety in painting of different fronts was also a thing to be considered. Concrete might also be made use of if properly treated, in small quantities; the all-over concrete house was an abomination. Corners and angles should have strength and solidity. What, for instance, could be more absurd than a large glass pane at an angle on the ground-floor which looks like a huge hole in the wall, and over it a massive wall with sculpture on it, as we sometimes saw it; the modern iron girder building with its huge glass panes was not by any means as yet all that might be desired; especially the large panes were positively ugly; small panes would do a great deal to make the wall and windows appear more a homogeneous whole. It had been suggested here and there to give certain buildings devoted to especial purposes a distinct typical exterior. But in a business street, containing buildings devoted to a variety of trades, such as insurance buildings, office blocks, banks, shops, and so on, it was quite impossible to come to any such arrangement. Variety was absolutely essential. At present, the fronts in certain streets presented one phase only of Architectural treatment, and here was the difficulty. What can one do to produce an Architectural effect in a case where the frontage is only limited? Up to the present, Street Architecture had been allowed to take care of itself. Hence we had become accustomed to see cornices cut off short at the boundary line. But it seems possible to obviate such inartistic features. He would suggest that the real design of the frontage should be confined to the upper stories, so as to leave the ground floor comparatively plain without any projecting Architectural details. Occasionally we saw instances of two such designs side by side, without each interfering with the other. Unfortunately, the use of oak in frontages was forbidden nowadays, and we could therefore not often obtain such picturesque ornamental effects as we notice them on some ancient mediæval structures in such places as Hildesheim for instance. In narrow streets considerable interest could be imparted to a front by a slight projecting out of the first floor; this was a small matter in itself but was very effective, and gave a variety of outline to a front. Skylines have become a kind of shibboleth. Gabled fronts looked picturesque but were not practical, and we must therefore be content to let them go. A gable here and there would be right and heighten the general effect and could do no harm. But this would be setting a bad example. There was another important matter.

FLAT ROOFS

for town houses impressed themselves on the mind of the reflecting Architect. He looked upon it that the flat roof would come more and more into vogue in future City Architecture, although, of course, there would be sure to be an outcry against the general adoption of the flat roof, but, as there was much in habit, we might eventually get to like it. At all events this innovation would prove to be of real, practical use. Balustrades, as now generally used, were an Architectural sham, because at present no one ever went on the house-top except the man who wanted to repair the roof. In the case of flat roofs balustrades would serve a useful purpose, justifying their existence. There were two distinct ways to add interest to a street front as regards the treatment of the surface. The one was the modelled surface and the other the flat surface. According to Mr. Lethaby, modelled surfaces in street fronts were undesirable as Architectural features in a smoky city. In a narrow street projection should rather be avoided. No one could deny that bold cornices made a very fine piece of effect, but it was a question of a wide *versus* a narrow street. In a narrow street a cornice was never seen to advantage. We sometimes saw street buildings in narrow streets clothed with increasing richness towards the upper portion of the design, but all this elaboration was completely lost, there was no reason why in a narrow street the decorative treatment should not be placed where it could be seen, viz., on the ground floor. Terra-cotta lost its effect from its profusion. It had been said that our streets were losing in attractiveness by the abolition of characteristic signs and symbols on shops, and some people seemed to be anxious to revive these, but these good people quite forgot that this mode of decoration originated in a period when people could not read. What would perhaps be more to the purpose, would be to get tradespeople to write their names legibly on the outside of their shops, instead of having monster signs projecting into the street. One of the

DIFFICULTIES OF SHOP ARCHITECTURE

was to get a large window on the ground floor and an entrance by the side of it. Where practicable, one entrance on each side of the window was to be preferred for the sake of symmetry, or, where the frontage was small, one entrance between two small windows. He also thought that we had not yet arrived at a proper Architecture for banks. The ground floor, especially the entrance, should be solid and massive, rather than decorated, so as to suggest at once that it was a stronghold of property. Mr. Statham quoted the entrance to United States Trust, Wall Street, New York, as an example, being very impressive and in exceedingly good taste, and said it conveyed an idea of power; and was, strange to say, designed by an English Architect named Richardson. Whatever might have been people's ideas in past ages, on Street Architecture, mattered little: we had to consider the requirements of the age we live in. One question of great importance was that of grouping the windows, and this led up to the

question whether we should treat the main tiers either as pilasters or whether we should have a solid wall. The chief consideration was, always to give the preference to the stronger construction; æsthetic fitness was an entirely different matter, There was also the most important question as to what

MATERIALS

should be used in the construction of street fronts. As already stated, timber fronts were doomed by law, as timber was too dangerous for city structures. Brick was the favourite at present. It appeared, at first, to lend one's building colour and a certain richness of texture, but it soon turned out to be a soot and dust collector. It would, especially in a smoky city, seem more advisable to use glazed materials for fronts; here and there it looked very well, but what would people say to a street presenting frontages polished and glazed from end to end? Terra-cotta had been used with good effect in a good many of our recent street buildings. He was bound to confess that he had still a weak conservative leaning towards stone, as, after all, the most dignified of materials. But stone should not be carved too much. He wondered that cement was not being used more than it is, because it gave a contrast of tone if used with discretion. The use of stone and glazed material together should not be encouraged, because stone changes its colour, and glazed material looks ever new. What discords of colour we should have! The application of colour in small panels was more feasible. Mosaic work was very good, and it was to be hoped that we should see more of it. There had only been few attempts at it, and a good Artistic mosaic design lent itself remarkably well for mural decoration, and symbolical designs added interest to our streets; but, after all, it was only a few of us who had eyes for such things, and if one decorated one's house, one did so for one's own pleasure. It was quite an illusion to think that the masses appreciated street Architecture to any extent. Anything like mosaic harmonized naturally with Architecture, and was a kind of "pictorial" Architecture in itself. But after all said and done, sculpture was the form of ideal decoration which most of all blended with Architecture.—Numerous illustrations were shown, and also a great number of lantern slide views of street Architecture from almost every part of the globe.

THE ARCHITECTURAL ASSOCIATION.

A MEETING of the Architectural Association was held on Friday evening. Mr. Beresford Pite said, before asking Mr. Statham to read his paper, he had a duty to perform of an unusually pleasant character. He was old enough, in the history of the Association, to remember with what enthusiasm the work of the Entertainment Committee used to be carried on under the secretaryship of an old friend, who then went by the name of H. D. Appleton. Since then, however, Mr. Searles-Wood had taken upon himself the mantle of Mr. Appleton, and had continued, on behalf of the Association, to carry out the most self-denying and arduous duties of secretary of the committee responsible for the arrangements of the annual excursion. Of late he had been associated in the new work by Mr. Carbutt-Brown, whose absence that evening was enforced through illness. For many years Mr. Searles-Wood had been the life and soul of the annual excursions, and the pleasant business they had undertaken, was to take advantage of his retirement from the Entertainment Committee—for Mr. Searles-Wood was only severing his connection with this committee, and would continue to take an active interest in the Association—was to offer to him, on behalf of those who had taken part in the excursions, a small token of their friendship and esteem. The movement had been generated by the excursionists themselves, but they thought the presentation should not be confined to themselves, but that it should be made in the presence of the Association, and the gift handed from the chair. And although some members might feel some disappointment in not having shared in the interest and kindness of heart which led to the testimonial, it was their own faults for not having attended last year's excursion, as he did. The speaker then handed two silver candelabra to Mr. Searles-Wood. Mr. Searles-Wood, in returning thanks, said: I am so overcome by what you have done to-night, that I cannot really find words to express my gratitude. I have always thought that the Association work was of sufficient interest in itself to be its own reward, for so it has been in my case. Its meetings have been the means of bringing me in contact with men whose friendship I value most deeply, and for this expression of their kindness I am unable to adequately express my feelings. I can only say that if the work I have done has given as much satisfaction to them as it has to me, I feel doubly repaid. I certainly think that the

VALUE OF THE EXCURSIONS

are hardly ever fully appreciated by a great number of the younger members of the Association, and I hope this reference here to-night will have the effect of drawing their attention to the matter. To my mind, the value of the excursions does not lie solely in the fact that it affords a holiday and an opportunity of visiting old and interesting buildings, but is valuable as the means of building up much-valued friendships, and the interchange of ideas during the excursion week is, I am sure, of immense utility, in addition to the work we go to study. I can say no more in appreciation of your kindness.—Mr. E. W. Mountford said he was not going to detain the meeting; he merely wished to say that he had received a number of letters and telegrams from all parts of Great Britain, from persons who would liked to have been present, but who, through various causes, were unable to attend. All expressed what the President had so nicely stated—their feeling of friendship and gratitude towards Mr. Searles-Wood, and as a member of the Excursion Committee for fourteen or fifteen years, he might also be allowed to say how much they owed to Mr. Searles-Wood. He (Mr. Mountford) knew what the secretaryship entailed.—The Chairman then called upon Mr. Statham to read his paper on "Street Architecture," which we give above. A somewhat lengthy discussion followed. The Chairman said they were indebted to Mr. Statham for the great pains and labour he had been at in illustrating his very thoughtful remarks and suggestive criticisms. The subject was so vast that it required a large man, and he ventured to assert that none present felt any doubt as to their having derived valuable lessons from Mr. Statham's generalisations. He (the speaker) could not but feel that a special value attached to the illustrations, because they had not been brought forward as illustrating historical or archæological developments of work; they were brought forward as illustrations of a class of building always with them, and it did not matter whether buildings spoken of were ancient or modern, Queen Anne or classic, whether they were tumble-down, unthought-of erections, or whether they were carefully considered works, with such a paper as they had heard they were enabled to get a broader sense of a subject of their daily work. The subject was of value also, because it would teach them a very important lesson—to look for idea in building; not merely to ask the question "Is this in accordance with the general custom of building?" but rather "what is the idea in erecting this building? Is it erected to impress one with its verticality or horizontality? Does the building exemplify one or more good qualities?" They had got to introduce expression of idea even when they had only a frontage of twenty or thirty feet to deal with, and it would be much more helpful to them than had they simply to make the arrangement of windows in Queen Anne style, and the doors in Gothic, and so on. He would like to emphasize the great value and importance of

A PROPER STUDY OF RECESSSION

in street Architecture, remembering that although they might be prohibited in the construction of projections, they would not be prohibited, as a rule, from recessing, and he thought in the greater number of instances of street Architecture recession was much more valuable than projection; for instance, it was especially so in the case of work in a narrow street. He would therefore advise the student to study shadows, and to observe their effect, not only in sunlight, but throughout all the day. There were a number of other interesting matters associated with this subject which he would like to refer to at length, but which he could only refer to slightly. He could not help feeling very thankful when Regent Street was re-painted, for however interesting some of the work might be, the street became a new street when it received its annual coat of paint. The work was there in its pristime condition of beauty every time the paint brush was brought into operation. Every time the Crown Surveyor ordered it to be repainted, the work was renewed, and he could not help remembering with amusement the American's remark, chronicled in the columns of Punch, that "St. Paul would be all the better for a coat of paint." Respecting the utility and effectiveness of small window panes, they might play with them in their hall windows and in their bay windows, but when the Architect descended from the use of plaster and marble to red putty, he was going to

TOO LOW AN EBB FOR ARTISTIC EFFECT,

and if their buildings failed because the windows looked like gaping holes, it was their fault.—Mr. F. Clarkson wished to supplement the Chairman's remarks with a few comments on the points which had been raised. With reference to the necessity of avoiding anything likely to emphasize the narrowness of a frontage, he wished to call attention to one of the illustrations, where there were four fronts and only two gables. The party wall between each pair of houses was carried up in the centre of the gable, and the manner in which this was done in order to comply with the regulations in force in London for the prevention of the spread of fire from house to house, was by the introduction of fire-extinguishing material and concrete, which were so arranged as to be an effectual preventive of the passage of fire from one building to another. As to the President's remarks respecting the "freshening" of buildings, the speaker did not think it was absolutely necessary to use paint in order to give a building a fresh appearance, for with brick buildings the ground stories, at any rate, were usually kept clean. Mr. Gibson, who might be rightly called, he thought, a distinguished Architect, always aimed at obtaining a very legitimate ending in his carefully-finished fronts, and in this respect he set a very good example—the bringing up of the front, and finishing everything in a neat and perfect manner. And while speaking of Mr. Gibson, he might say that he was the recipient of his confidence respecting the treatment of banks—a subject of which they had heard not a little that evening. Mr. Gibson had had a large experience in the treatment of banks, as large, perhaps, as any man, and he had come to the conclusion that it was very necessary that a bank should have "a large order." The ground floor was necessarily the business part of the premises, and that must, therefore, be of a solid character. Then they had a number of stories not utilized for business purposes at all, and if the stories were small, the building had too much the appearance of an ordinary dwelling-house, and this had to be averted. He proposed a hearty vote of thanks to Mr. Statham for his interesting paper.—Mr. M. B. Adams seconded the vote, remarking that the bait which the President had thrown out for the debate, he accepted, and he very much questioned whether he (the President) was altogether right in his views and use of smaller panes of glass. Unquestionably, if they had a monumental front and a client who would allow them to go to some expense in the matter of sculpture, then they knew exactly how to act, but when they had a utilitarian front, and the majority of our buildings were of this kind, where every foot of space was to be utilized, a degree of scale and continuity was required. In the second specimen of the lower bay windows submitted, where a simple and dignified treatment had been carried out, the work was satisfactory when it was done, and he ventured to think it was satisfactory now. The buildings included in the illustrations were of a very varied character, and he quite recognised that it was difficult to classify them, but no examples of American Architecture were included; none of those huge tower-like buildings, which almost seemed a necessity of the times, were amongst the other specimens. He referred to those buildings in which iron and steel were very largely introduced, and in which the stone-work was merely attached to the iron-work in a very unsatisfactory way. Here, in London, the Building Act would not allow them to build so high, he supposed, but many of our buildings were really higher than they need be, if only the

skylight and other means of advertisement, which seemed to destroy the appearance of buildings in the erection of which Architects had taken a great deal of pains to give refined details, were banished. In Bishopsgate Street, where Mr. Townsend was giving them a most artistically set-out front, cigars or pipes, some of them 20 feet long, were put up to disfigure an otherwise handsome building.]—Mr. Fellows-Prynne said that one of our

GREATEST FAILURES,

however, had been, if it was not at present, street Architecture. Compare the English styles with the streets of Paris and Vienna, and they could not but admit that they had failed particularly in the erection of angle buildings. In this respect they could copy the example of Paris to advantage, but, of course, London could find a set-off. Mr. Statham had wisely mentioned the treatment of cement. They must acknowledge, however, that there were great possibilities in the proper treatment of cement. He did not say it was always to be recommended, but when other materials did not lend themselves to such good treatment, cement was more than desirable. It had been well treated in the past, and if in the past, why not in the present day? As to the use of small panes of glass, he had heard shopkeepers complain of them as being a "regular nuisance." "They don't show our goods off to advantage," many of them said, and therefore Architects must meet them by providing for larger panes. They had heard little of American work that night, and certainly there was a side to street Architecture in America. But there were two buildings at home which had just disheartened him lately, and one building was in a street deserving of something better. He referred to what were called the Artillery Mansions, in Queen Victoria Street. Could anyone consider anything so atrocious? He did not know whose building it was, but it was terrible that in such a street, such a building should be put up. Then again in the street in which the Aquarium is situated, buildings called the Westminster Chambers were being erected. He thought it was a disgrace to London that in the street leading to the finest building in the city, such structures as the Westminster Chambers should be put up. Mr. Thomas having spoken, the President announced that Mr. S. Smith, at the next meeting, would read a paper on "A Plea for National Registration," whilst Mr. Flowers, who was to have given a paper on that evening, would occupy the date originally alloted Mr. Smith.

A LANDSLIP occurred on the Regent's Canal, near St. Pancras, on Thursday last. For the past three weeks there has been a gradual subsidence of a portion of the northern bank of the canal, at a point where the watercourse takes a full bend, between Great College Street and King's Road. The extent of ground affected is about 200 feet, and the sinking has been going on at the rate of from 1 inch to 2 inches a day. The bend occurs at the junction of Prebend Street with a row of cottages named Canal Terrace, and the first-named thoroughfare is separated from the canal embankment by a 9-inch brick wall. As the result of the continuous movement of the ground—which has sunk altogether some 6 feet—the strained wall gave way in one spot, leaving a gap about 12 feet in length. The channelling of the street was also disturbed, and it became necessary to place barricades along that side of the road. Canal Terrace itself has suffered little, though a section of the railings separating it from the canal gave way, owing to an inner stay being drawn downwards by the sinking land. As to the canal, it has been ascertained that the bed of the water at the spot remains sound and solid, while the opposite bank is unaffected. The towing-path, which runs at a lower level than the bank, has given way but little, and is only submerged for a short length. The New River Company has taken the precaution during the past fortnight of turning off the water at ten o'clock every evening. The cause of the subsidence seems at present to be unaccounted for. It is a curious fact that the landslip started about the same time as the work of reconstructing the King's Road Bridge was commenced by the St. Pancras Vestry. But the bridge is some fifty yards from the bend of the canal, and what connection its operations could have with the disturbance of the bank, it is difficult to see.

STEPHEN ADAM, ON STAINED GLASS, ITS HISTORY AND METHODS.

ADDRESSING the members of the Edinburgh Architectural Society, Mr. Stephen Adam, on Wednesday last, in his introductory remarks, said that a considerable experience and study of fragmentary and ancient examples of classic and mediæval Art and craft work, only strengthened his opinion that the preacher was right when he said there was no new thing under the sun. This might seem a pessimistic view; but he strongly felt that all they did now in decorative Art had been done before, and better done. This, however, should not depress but encourage the present efforts made all about them to redeem the past; and there was no more potent factor in their immediate vicinity than their School of Art, or rather that branch of it, the classes for tuition in applied Arts—Art and craft work. All honour to those who established it and worked hard to encourage its students in the truthful and correct rules of decorative Art—rules which could not be impugned with impunity. The fruits of these efforts were clearly evinced by promising blossoms, that would yet by recognition and propagation of national or local talent expand and further adorn and beautify a city already most beautiful in itself. Great was the crime of any who would disfigure, by building or otherwise, its natural magnificence. In this respect there was a splendid rivalry between the Architects and craftsmen of their Scottish cities. He did not use the word "artists"—a word which, from its frequency and abuse of meaning, was made cheap. It was of the work their trained Architects and craftsmen were able to do towards the comfort and education of the masses, in Church and home, in palace and hall, that he spoke. There was an

AFFINITY BETWEEN ALL THE ARTS,

but the true aim of the workers in metal, stone, and wood, of the mural decorator and glass stainer, and the designer of tapestry and decorative materials was distinct, and required a distinct training from that of the man—"the artist"—who painted scenes for enclosure in that perpetual gilt frame. They had noble exceptions among their Scottish painters, Architects, and sculptors; but in all conscience they had surely had a surfeit, at stereotyped seasons, by constant repetition of that everlasting violet hill, that cerulean blue loch, the cluster of trees on one side, a boat lying on a beach, and other commonplace etceteras that taught nothing. He spoke in no spirit of contempt for honest work, but deplored that such individuals, mere photographic copyists, often caricaturists of nature, had by the present arrangement of things such splendid facilities of getting additional letters attached (undeservedly so far as genuine Art was concerned) to the names their honest fathers gave them—while, forsooth, the craftsman, however noble and elevating his work and aims, took a back seat, and was considered ineligible or unworthy of association and recognition by academies, Art clubs, and kindred societies. These remarks applied only to such painters as showed

NO ORIGINALITY

nor individuality in their monotonous exhibits. He emphatically asserted that, with the fraternal aid of his elder brother and natural patron, the Architect, the trained craftsman, by strenuous and intelligent endeavour in the beautifying of all about them, would yet claim his position in the Art world. Mr. Adam gave an interesting sketch of the process of manufacture and history of stained glass, and especially commended the early English glass previous to 1280 A.D. The later *cinque cento* style was referred to as the perfection of picture-painted glass, and it was shown how bad imitation of this method led to a decadence, as the aim of the glass stainer seemed then to be only to imitate oil paintings. The epoch of bad German glass was next commented on. Examples of it were to be found in Glasgow Cathedral, and in Parliament Hall, Edinburgh. In concluding, he said that the development of this Art was rapidly advancing, and would advance if they only kept before them, when designing for or working on glass, that they had in the material lovely iridescent beauties which the painter on canvas had not. Do not by painful mechanism destroy those virtues. Keep the glass glass, and continue to let enriched and subdued light come streaming through it. Let them remember that their window was but a transparent screen. Let the students of the

GLASS-STAINING ART

tenderly cherish and cultivate the purity and principles of the earlier work, which was such a clear expression of the life and times of its producers, and in the practice, by accepting their modern increased scale of pot metal colours (that was, glass through and through) and greater facilities for correct figure drawing, endeavour to increase and emulate its beauties. From the sixteenth century work, though avoiding its architectural and constructive composition, wrong in principle for glass treatment, let them seek to inhale the spirit of poetry, music, and refinement, so palpably mirroring the genius of the time, and, above all, seek to learn the value and grandeur of its colour. In short, with the form and sweet simplicity of the one style unite the colour harmonies of the other, and in those combined virtues find the *ne plus ultra* for the increased development of the Art.

Our Illustrations.

ST. MARTIN'S CHURCH.

FORMERLY called St. Cross, this Church stands near the Town Hall, Leicester. Ever since the time of the Romans there has been a Temple or Church upon the present site. The Church was originally cruciform in plan, with narrow aisles to the nave, north and south transepts, chancel and tower; at the end of the thirteenth century, an additional south aisle was built. In the Perpendicular time the chancel was rebuilt and a small chancel added; this took place probably about 1400–1420. The old tower rose from the centre of the Church on four Norman piers, and was surmounted by a lofty crocketted spire; this was taken down and rebuilt in the early English style in 1861, by Brandon. The south door is an exceptionally fine one, being in the early English style. Some Norman work still remains, consisting of an arch and a small piece of a string course.

ST. GEORGE'S, HANOVER SQUARE.

Apart from Architectural considerations, which are not inconsiderable, it is certainly a matter for congratulation that the historic Church of St. George's, Hanover Square, escaped practically without damage, externally, at least, by the recent fire. The view shown this week, illustrates the turret where most of the internal damage was done. It is assumed that the fire originated by the electric motors, used in the organ-blower, being over-heated and setting fire to the woodwork around. The Church, particularly the interesting turret, is probably one of the happiest efforts in design of Wren's pupil, Hawksmoor. It is not a typical example of his work, inasmuch as it shows less of the usually ponderous hand of the pupil and more of the grace and refinement of the master himself.

A FIRE occurred last week in the salon at Blenheim Palace, a large beam becoming ignited through the overheating of a flue. The damage to the roof was not very serious, and fortunately the beautifully-painted ceiling by Laguerre escaped with little injury.

THE Newcastle Society of Antiquaries is making arrangements to hold an exhibition of local engravings, members being appealed to for the loan of specimens. In May next the Society will hold an exhibition of Newcastle plate, ecclesiastical and secular. Those who possess samples of the same will be asked to lend them. The Newcastle hall-marks were one or three castles.

SIR HENVY IRVING will unveil, at the end of May or beginning of June next, the statue of Mrs. Siddons, which is to adorn Paddington Green, its precise site being in close proximity to Mrs. Siddons' tomb, which is in Paddington cemetery, now a public garden. The design of the statue was approved by the late Lord Leighton, and the statue itself is being executed by M. Chavalliaud, of white Sicilian marble.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
December 9th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

IN June last the London County Council, on the recommendation of the Public Health Committee, instructed the Parliamentary Committee to insert clauses in the Council's General Powers or other Bill of next Session enabling the Council to make bye-laws similar to those which can be made by urban authorities outside London under Section 157 of the Public Heath Act, 1875, for the prevention of the occupation of any new dwelling-house until the drainage should have been completed and the dwelling-house certified by a duly authorized officer of the sanitary authority as fit for human habitation. The Public Health Committee states that it has now received from the Parliamentary Committee, a report by the Parliamentary agent pointing out that a bye-law to the above effect would make the letting and occupation of any new dwelling-house dependent entirely upon the individual opinion of an officer of a sanitary authority as to what was and was not fit for human habitation. The agent stated that he did not think that the Council could succeed in justifying an application for powers to make such a bye-law in London, looking to the fact that there were more than 40 sanitary authorities, whose officers might entertain different opinions on the subject of the bye-law, and that what might be regarded as fit for habitation in one district, would perhaps not be certified as such by the officer acting in an adjoining district. The committee states that it has informed the Parliamentary Committee, that it thinks the question of obtaining powers with reference to a certificate that a house is fit for habitation should stand over for the present.

THE Art for Schools Association has opened an exhibition of framed and unframed pictures recommended for school prizes and Christmas presents, at 29, Queen Square, Bloomsbury. The Association, which was founded in 1883, succeeded in making arrangements with the principal Art publishers in the metropolis by which they were enabled to sell, for the purpose of being placed in the class-rooms of elementary schools, good prints and photographs of beautiful and interesting works at rates much below the market prices. A publishing business, supported by annual subscriptions, has also been established. The report of the Committee shows that the operations of the Association have extended to a great many Board and other schools in London and the provinces. The number of pictures sold in 1884 was 2,732, while last year the total reached 3,664. The pictures in the exhibition, which remains open to the public until December 14th, include specimens of photographs, autotypes, and chromolithographs, representing works of famous artists. All the pictures will be on sale during the exhibition.

LORD LEIGHTON'S house, including the priceless Arab hall, is, after all, to be preserved for the nation. Some months ago a movement was set on foot for the purchase of the house, but unfortunately was not attended by the success which might reasonably have been hoped for. We are now able to announce that the hopes of those who wished to preserve the house for the nation will be realised. In spite of the failure of the movement publicly, a small body of friends have never ceased their labours on behalf of the project, and thanks to them and to the generosity of the late P.R.A.'s sisters—Mrs. Sutherland Orr and Mrs. Mathews—the beautiful house in Holland Park Road is to be offered as a gift to the nation, subject only to an assurance that the house will be suitably maintained and that the Arab hall is to be permanently preserved as it was at the time of Lord Leighton's death last January.

ACCORDING to a return issued by the Treasury, there are only 16 buildings of Architectural and historic interest, the structure and fabric of which are under the control of Her Majesty's Commissioners of Woods and Forests. Eight of these are in England, four in Wales, two in the Isle of Man, one in Scotland, and one in Ireland. The buildings in Wales are Harlech Castle in Merionethshire, Denbigh Castle, the Burgess Tower at Denbigh, and part of the ruins of Leicester's Church, all in Denbighshire. In Scotland the old Church and Monastery of Beanly, Inverness-shire, is maintained by the Commissioners; the old fort, near Kinsale, in Ireland; and Castle Rushen and Peel Castle, in the Isle of Man. The English buildings comprise Sandsfoot Castle, near Weymouth; the Castle and Speech-house of St. Briaoels, and the old Preaching Cross near Staunton, in Gloucestershire; the Queen's house and the Verderer's Hall in the New Forest, Hampshire; Eltham Palace in Kent; the ancient wall of the City of London, situated in George Street, Tower Hill; and Lindisfarne Priory, Holy Island, in Northumberland.

A SEMI-OFFICIAL announcement has been made that the Postmaster-General contemplates no interference with Wardrobe Place, which is endangered by the Bill promoted by the Post Office authorities for the extension of the Post Office Savings' Bank. It cannot, however, be too strongly insisted upon that these semi-official explanations are worth absolutely nothing. It is not so very long since the Old Rolls Chapel was, in spite of official promises, razed to the ground before any one could interfere. In the present case, although on the published plan the limit of the site to be acquired is bounded by the frontage of the houses on the east side of Wardrobe Place, the acquisition of this property would carry with it one-half of Wardrobe Place, and with the very extensive powers conferred by the Bill—to acquire land on either side of the proposed site, to extinguish rights of way and of light, and to stop up all passages—there is no doubt that, if the Bill in its present form were to become law, Wardrobe Place would be absolutely at the mercy of the Post Office Department. That this view of the case is not entirely fanciful is shown by the fact that the Post Office authorities have already entered into negotiations for the acquisition of sites on the western side of Wardrobe Place. The only safe course is to obtain the introduction of a clause in the Bill, definitely providing for the preservation of Wardrobe Place as an open space accessible to the public, and at the same time limiting the height of the buildings to be erected around it, so that its usefulness as an open space may remain unimpaired.

THE recent work of Mr. Harrison upon the Nelson column brings to mind the mechanical means by which Railton, the Architect, set up his granite shaft. Half a century ago the feat was regarded as a triumph of engineering skill. It is recorded that 7,700 cubic feet of timber were used in the scaffolding, the labour of erection costing but £240. A travelling steam-engine lifted the massive blocks of Devon granite, each weighing about six or seven tons, to the successive floors, but so slow was the rate of elevation that they took from four to five hours in reaching the top. About £23,000 was expended on the column, £5,000 on the statue, pedestal, and bas-reliefs, and £2,000 on the Architect. At the last, Government had to come to the rescue with £12,000, and Landseer's lions cost the country, in 1867, something under £1,000 a-piece.

AT a recent meeting of the City Commission of Sewers, it was agreed to adopt an arrangement for setting back No. 89, Fleet Street to the line of improvement for £6,000, to include all interests. It was also agreed to adopt a plan of improvements at the western end of Cheapside, by setting back the railings at the southern end of the old post-office, at a cost of £2,500, which sum is to be devoted to the scheme for acquiring, as an open space, certain vacant land in Little Britain, adjoining the existing public garden, Aldersgate Street, and commonly known as the "Postmen's Park."

ALONG the north side the mosaics which occupy the spandrels of the arches in the choir of St. Paul's Cathedral have now been completed, while those on the south side are being rapidly pushed forward, and it is hoped that by St. Paul's Day all the scaffolding may be removed. The pictures are executed in the rough mosaic work which was so successfully employed by Mr. Richmond in the decoration of the roof and apse. The spandrels are divided by the arches and pillars into six sections, the first two containing an allegorical representation of the Creation of Light. The two following sections show the visit of the Angel Gabriel to the Virgin at the Annunciation, the representation of the Virgin Mary being particularly fine. The last two sections show two guardian angels keeping watch on the walls of the holy city. The whole work is beautifully rich in colour, the tints harmonizing with the surrounding decorations. On the south side the subjects of the mosaics are the Expulsion from the Garden of Eden, the Temptation in the Garden, and the figures of two angels bearing the emblems of the Passion. When the choir is completed the four quarter domes are to be treated, but the subjects have not yet been chosen. The windows in the north and south transepts are to be filled with stained glass, the gift of the Duke of Westminster, and the execution of this work has been entrusted to Messrs. Powell, of Whitefriars. These windows will commemorate the Conversion of England to Christianity, the figures representing the first bishop of each of the kingdoms of the Heptarchy, with the corresponding monarchs. We also understand that Mr. Richmond is designing a large group of statuary in memory of Lord Leighton, to be placed at the eastern end of the south side of the nave.

AN important book sale was held last week. It extended over three days, and consisted of valuable works and manuscripts selected from the library of a gentleman whose identification was kept a profound secret. Record prices were obtained for many of the lots, and the total proceeds amounted within a trifle to the figure of £4,000. The sale furnished additional proof, if that were necessary, of the favour in which early manuscript and printed books are regarded by dealers and collectors. The most interesting work in this category was a history of the Conception of the Blessed Virgin, printed in 1471. The volume, consisting of only twenty-six leaves, was printed in large Gothic letters, and contained forty-five woodcuts. The book, seeing that it is dated ten years after the introduction of printing on the Continent, was regarded as a somewhat rough production, and £320, the price paid for it, was thought to represent rather more than its value. A Basilikon, dated 1592, and embellished with the portrait, armorial bearings, and mottoes of the Emperor Charles V., sold for £100; while the historical Mundi Libri XXXVII., by Plinius Secundus, printed in 1545, was purchased for £160. A similar figure was paid for an original unpublished manuscript, produced for Louis XIV., and entitled "Les Plaisirs de l'Isle Enchantee." The first polyglot Bible, which also contained the first printed text of the New Testament in Greek, realised £100. The catalogues contained a large number of county histories and topographical works, and the prices obtained show a considerable increase upon those which have ruled for the last five or six years. In this series the most noticeable was a large paper copy of Nichols's "History and Antiquities of the County of Leicester" (1795–1811). Such copies of this work are very rare, as many of them were destroyed by fire. At the Gosford sale a copy realised £280, while £300 was obtained for one at the Comerford sale. The present copy, however, was not so fine or perfect as either of these, and it fetched only £172.

IN Professor Baldwin Brown's lecture on "Greek Architecture," in Moffat Academy, Edinburgh, he explained that by classic he meant Greek Architecture, which is striking from its mass, while the ornamentation is always of the best setting and effect. Greek Architecture possessed every element desired but that of mystery. There was nothing suggestive in Greek Architecture. In Gothic

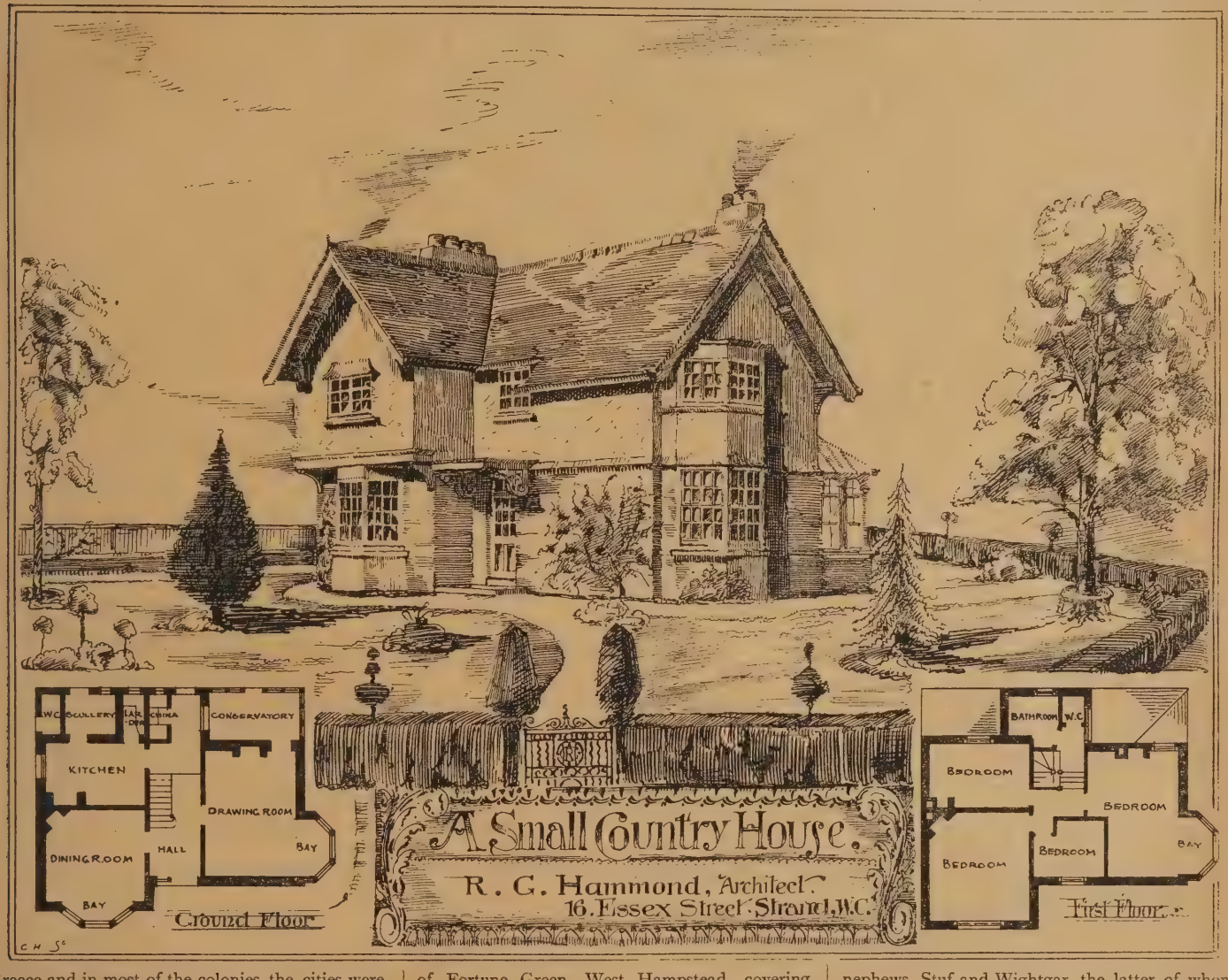
Architecture, on the contrary, there was something that stimulated the fancy. Greek Architecture presented a calm beauty and solemn grandeur, whereas Gothic, with pinnacles, shaft, and spire, aroused imagination. There was nothing like that in classic Architecture, where everything could be explored, and which presented the perfect proportion of each portion to the general effect. The Greeks seemed to like to give effect, size, and mass to their buildings. The column, a prominent feature, was wherever possible made to look as if carved out of one piece of stone, which gave effect and grandeur to the buildings. Dealing in detail with the various parts of the building, he pointed out the contrast between the simplicity of the column and the richness of the frieze. In Greece and in most of the colonies the cities were along the seashores arranged in terraces, and the Greeks being fully aware of the importance of taking advantage of the position of the ground, the severe simple lines of temple contrasted effectively with broken masses of the rocks and the rounded forms of olive trees.

A SERIES of ancient Greek remains has recently been discovered in one of the principal squares of Patras, comprising a mosaic pavement and some marble sculptures. These have latterly been examined by Mr. Cecil Smith and two students of the British School of Archæology at Athens. Among the sculptures has been found a statuette which is undoubtedly a copy of the Athena Parthenos of Pheidias, which stood in the Parthenon. The head and arms are missing, but they may possibly be recovered in the course of further excavations. About two-thirds of the shield are also missing, but the remaining portion displays part of the subject in relief (the battle of the Greeks and Amazons), which, according to Pliny and Pausanias, existed on the original. The figures which have been preserved are those of two Amazons, together with the feet of a Greek warrior. They can be identified with those of the "Lenormant statuette" at Athens, and the Strangford marble in the British Museum, but are of better workmanship than either. The discovery not only supplements the evidence furnished by the "Lenormant statuette" with regard to the subject of the Strangford shield, but conduces to a better appreciation of the lost original of Pheidias than can be derived from the other examples.

THE scheme for the purchase of West End Hall and grounds at West Hampstead, formerly the property of the late General Sir Charles Craufurd Fraser, M.P., for which at least £40,000 was required, has been abandoned, aid from the London County Council not being forthcoming. On the other hand, the purchase of Fortune Green, West Hampstead, covering between two and three acres, as a public recreation ground, at a cost of between £7,000 and £8,000, towards which the London County Council has promised £3,000 and the Hampstead Vestry £3,000, has now been almost accomplished, and it is expected that the contract of sale will be signed within a few days.

ABOUT thirteen years ago crowds of people flocked to the narrow and crooked little street known as Portsmouth Street, leading from Portugal Street to Lincoln's Inn Fields, for a rumour was spread abroad that the house reputed to be the home of Little Nell was about to be demolished by order of the Board of Works. This, however, was a false alarm. The Board had only ordered it to be shored up, as the adjoining house was in danger of collapse. The question of its removal was, however, only a matter of time, and now the time has arrived. Its demolition will very shortly be effected as a part of the wholesale improvements going forward in this neighbourhood, and which have already claimed two historic taverns, the "George the Fourth" and the "Black Jack," and the last of the old bulk shops. Though the loss of all these associations is a matter for much regret, it cannot be doubted that the clearing of this squalid and congested congerie of byways will be a very real improvement. The street, which originally bore the queer name of Louches Buildings, takes its present name from Portsmouth House, built by Inigo Jones for the Earl of Portsmouth, the front of which is still standing, but the interior has been entirely transformed to meet the requirements of modern days.

CARISBROOKE CASTLE is to be fully repaired as a memorial to the late Prince Henry of Battenberg, Governor of the Castle. By some considered to be of Roman, perhaps British, origin, the Castle was captured in 530 by Cedric, who gave it to his nephews, Stuf and Wightgar, the latter of whom rebuilt it. The fort was enlarged by William Fitz-Osborne, first lord of the island, and in Domesday Book it is cited as occupying one virgate of ground. Some Norman masonry remains at the north-west angle and in the Mountjoy tower; the main entrance is supposed to have been built, temp. Edward IV., by Lord Widville, whose arms, between York roses, are on a stone near the top. The Castle assumed its present aspect in the reign of Queen Elizabeth; she built the outworks, with a moat, and repaired the principal gate, above which is "E.R. 1598," employing for engineer the Italian Genebella, who had fortified Antwerp. The keep stands on an artificial mound ascended by seventy steps. One may yet see the ruins of the apartments occupied for some fourteen months, during Colonel Hammond's governorship, by Charles I., from which he twice attempted to escape, and where his children were imprisoned after his death. The Princess Elizabeth's gravestone, inscribed "E.S.," was found, in 1793, near the altar of Newport Parish Church, wherein the Queen erected a monument to her memory forty years ago. St. Nicholas's Chapel was rebuilt in 1738. It belonged once to Quarr Abbey. Near the Castle Hill are



traces of the Cistercian priory, founded by Fitz-Osborne, who built also the Parish Church of what was formerly the Wightgarisburgh.

A SPECIAL meeting of the Belfast Corporation held last week, for the purpose of considering plans for the erection of a new City Hall on the site of the old White Linen Hall, at a probable cost of £200,000. Some time ago prizes were offered for the three best designs, and Mr. Waterhouse was appointed, in conjunction with Mr. J. C. Bretland, C.E., the Belfast City Surveyor, as umpire. The plans were all received a few weeks ago, and displayed at the present municipal buildings. Mr. Waterhouse and Mr. Bretland made their selection, and at this meeting of the Council two other plans were added. A poll was then taken on the five, with the result that two Glasgow competitors and one Belfast were retained. The Glasgow competitors were, it is understood, Messrs. Malcolm, Stark, and Roantree, and Mr. James Millar, and the Belfast competitor Mr. Graeme Watt, C.E. The final selection has been deferred.

BIDEFORD'S old bridge of four-and-twenty arches, a most interesting structure, will, apparently, give a good deal of trouble to its guardians before they are able to widen it. Borings have been made with a view of seeing of what the foundations are really made. There is a legend that they are composed of sacks of wool, and there has also been a belief that the bridge rests upon piles. The truth will soon be made apparent, but, whatever the fact, there seems little doubt that any extension will mean more than a few thousands. Originally the bridge gave passage only to pack-horses, and later the structure was widened. Not only are doubts raised as to its stability, but it is altogether inside the needs of the town. Evidently the Bridge Trust has made up its mind for a substantial structure. The varying sizes and styles adopted in the bridge is explained by the fact that every one of the arches was a gift.

A FOUR-STOREY block of shops and dwelling-houses in course of erection in New City Road, Glasgow, collapsed last week. Fortunately sufficient warning was given to the workmen—the slaters, plumbers, joiners, and plasterers—to quit before the collapse occurred, and the entire range of buildings fell in a heap without a single casualty. The new buildings were situated between West Gardner Street and Seamore Street, and only a few yards from the tramway rails. They were being constructed by Mr. John W. Bruce, C.A., 12, St. Vincent Place. The buildings, which were of red sandstone, were nearing completion, and other similar premises on either side are already occupied. Pieces of plaster were observed to be falling from the roofs and walls. Looking for the cause, the men discovered that one of the central pillars supporting the iron beams on which the masonry rested was bending. About twenty minutes later the pillar snapped at the centre, causing the upper beam to yield, and gradually the whole structure gave way. It is supposed the falling-in was due to the soft nature of the ground.

AT the annual exhibition and distribution of prizes in connection with the Hereford School of Science and Art at the Free Library, Hereford, Mr. John Lambe (Chairman of the Committee) presided, and was supported by the Dean, Canon Williams, the Mayor (Alderman Llanwarne), Alderman Bosley, Mr. J. Gwynne James, Mr. R. Keay, and others. The Hon. Secretary (Mr. Gilbert Davies) presented the annual report, from which it appeared that the school had obtained an award in the national competition of works, and that the grant from the Science and Art Department exceeded that gained last year. The Mayor then distributed the prizes, and congratulated the city upon possessing such an excellent school of Science and Art. He was sure it would prove of the greatest value; for in these days it was necessary that the nation should develop all the resources at its command. The Dean observed that during the reign of Queen Victoria there had been an extraordinary progress made in science, such as was never known in any other period of history, and with regard to Art generally the taste of the people had greatly improved. He thought, however, that there was still much room for improvement in Art so far as it applied to Architecture. There were many houses fitted inside with every luxury that could be wished for, but still, on the outside, they looked more like large asylums or some public institutions than anything else.

A LECTURE on "William Morris, Master Printer," was delivered at St. Bride's Institute, by Mr. F. Colebrook. Mr. Colebrook said that, first, Morris was a poet, a Virgilian poet, a poet whose soul it had been said was filled with sumptuousness; a poet in whose verse the prevailing impressions were of simple peace and beauty. Morris, too, was masterful in prose, too archaic it might be for our liking, but full of its own thought-compelling power. He was a great collector, and a great designer; like Street, the Architect of the Law Courts, to whom Morris was articled, he seemed to see a design on the blank paper, and guide a swift pencil over it. He was a weaver of miles of tapestries; he made wall-papers, which were famous all over the world. But all those things and more only whetted his appetite for onslaught upon different provinces of the kingdom of ugliness. So in due time he became a printer. He designed his own founts, he directed the making of his own paper from materials which he approved, and with water marks which he drew. If his life was spared, he told his comrades, he meant to make his own inks. William Morris's strong personality expressed more than even his masterful performances. He spent his whole life not after all in many efforts, but in one effort, pursued by various means.

AT length Sheffield is beginning to realize that more light is now obtainable without any startling revolution amongst existing fittings, or an uncomfortable addition to the gas bill. A small experiment now being tried on one of the principal roads from the city to the west end, so palpably demonstrates the feasibility of better illumination that there can be very little hesitation in extending the new system throughout the city. A large number of lamps, each containing five ordinary burners, have, in recent years, been erected in Sheffield. Some of these, in Devonshire Street and Glossop Road, have now been fitted each with four incandescent mantles, which give an intensity of light far beyond the five burners previously used. Looking down Glossop Road one sees that the new lights stand out prominently from among the intervening feeble yellow rays of the ordinary gas lamps. In time, as experience has shown, these mantles contract, and the light will then lose something of its present penetrating radiation. But even then they will give at least twice as much light as the ordinary burners. There is an excellent opportunity in Fargate to demonstrate on a really adequate scale the advantages of the new form of illumination. Some dozen or more of big lamps are already fixed in that thoroughfare, in each of which five big burners are placed. To remove these burners, and substitute a group of four incandescent mantles, would more than double the amount of light, while it ought to reduce the gas bill.

IT is proposed to adopt the Workmen's Dwellings Act at Abertillery, and a scheme is to be submitted for the erection of 300 cottages in the district, which for several years past has outgrown at the rate of 1,000 per annum. Dr. W. E. Williams, J.P., the medical officer of health, has reported serious overcrowding, but the Council has taken no practical steps to prevent the evil. In such a state of things houses are now let at nearly double their value. Mr. Williams proposes that the Council should put up convenient houses at about £150 per house, including cost of ground, and the money would be repayable in about 32 years. A large number of the workmen employed at the local collieries have to reside out of the district, and when the pits at Six Bells are opened there will be still greater congestion, and the amount of money earned in the neighbourhood and spent elsewhere will be considerably increased. The scheme will be backed up by deputations from the Abertillery Radical and Labour Union and the Cwmtillery Liberal Association. It is anticipated, however, that the motion will be strenuously opposed.

APROPOS of the attack upon what is called "the builder fraternity" of Devonport, there are some remarks in the British Review which may be studied with interest, and possibly with profit, in that much-divided town. The article in the British Review has no immediate connection with the dispute between the builders of Devonport and the people who are desirous of forwarding the scheme of municipal dwellings, which the builders are accused of attempting to wreck. It is, in fact, an attack upon what is called municipal socialism, with the special purpose of further discrediting the Works Department of the London County Council. Incidentally, however, there is a reference to builders as members of local government bodies which may probably please the builders of Devonport, whatever their opponents may think about it. The contention of our contemporary is that a municipality is, from the very nature of the case, much less fitted than a private person to be a manager of industrial enterprises or a successful employer of labour. The dual reason advanced in support of this proposition is that the municipality, in the first place, does not possess expert knowledge and practical ability; and, in the second, it is not subject to the stimulus of personal interest. Only by mere accident is a practical builder or a keen man of business elected on the controlling committee, and then he is in a hopeless minority, liable at any critical moment to be outvoted by amateurs. Indeed, the advocates of municipal activity "always endeavour to exclude experts, on the ground that they will use their special knowledge against the public." This is undoubtedly the position which has been taken up at Devonport by those who have been foremost in the advocacy of a progressive municipal policy, and it is the cause of a good deal of the bickering which disturbs the harmonious relations of different sections of the Town Council.

ACCORDING to the Dean of Peterborough, the work already carried out at the west front of Peterborough Cathedral has revealed a much more serious condition of the fabric than was at first perceived. At the end of July, Mr. J. L. Pearson, R.A., very reluctantly felt compelled to advise that portions of the gables should be taken down and rebuilt, numbering and marking each stone of the outer surface, so that the whole, or nearly the whole, shall be replaced without alteration. The committee, realising the serious responsibility of deciding upon this step, felt it to be their duty before doing so to obtain a second opinion as to its necessity. They therefore sought the advice of Sir Arthur W. Blomfield, who, after a careful examination of the building, has furnished a report which entirely confirms Mr. Pearson's view. The committee has therefore decided to act upon their recommendations. The foundations of the west front have been made perfectly secure, and the work of the restoration of the gables is to be immediately proceeded with. For the work of the restoration of the fabric, as now contemplated, £11,000 will be needed. The following is the text of Sir Arthur Blomfield's report:—"Under ordinary circumstances the necessary repairs of the upper part of the west front might be proceeded with and satisfactorily carried out without taking down and rebuilding much, if any, of the old work as it stands. But, unfortunately, the initial defects in the foundation have been left so long undealt with, in the only manner that could be permanently effective, that much of the superstructure has in itself become rent and disintegrated in such a manner and to such an extent as to bring the whole into almost dangerous condition, and to render substantial and lasting repair quite impossible without taking down and rebuilding some of the existing work above the caps of the great piers. The alarming nature and extent of many of the fractures and gaping fissures which can now be closely examined from the scaffold, could not be seen or suspected until an enormous mass of débris and rubbish had been removed from the top of the groining of the porch. This has been cleared away, and from what can now be seen, it is not only evident that much more must be done than might have been reasonably hoped or expected, but that the construction and materials of the inner parts of the walls are such as will not permit of their being preserved or successfully dealt with by any of the well-known expedients frequently recommended and sometimes adopted with success in similar cases. If, therefore, the present undertaking is to have any well-assured permanency, it will be necessary to take down and rebuild certain parts of the existing structure above the point I have already named."

Professional Items.

BEAULY, N.B.—The extensive alterations that have for some time been going on in connection with the post-office in Beauly have now been completed.

CRATHIE.—The New Free Church was formally opened on Wednesday last. Built on a site, half-a-mile to the east of the new Parish Church, is a compact little structure in the Gothic style of Architecture. Its exterior appearance is greatly enhanced by the spire which rises at the north-end of the main edifice, and the substantial buttresses that support the walls lend an appearance to the building which is at once massive and effective. The interior has been fitted up in a pleasing and substantial manner. The ceiling and lower parts of the walls are of woodwork, varnished in a quiet tint. The lancet windows—of which there are five in each of the side walls, two in the south gable behind the pulpit, and one in the north gable—are filled with cathedral glass.

EDINBURGH. — The new Broughton Public School, in Broughton Road, has been opened. According to Mr. Robert Wilson, the Architect, the school has been built upon the site of Blandfield House, which was acquired by the School Board in the beginning of 1894. Additional ground to the rear was afterwards obtained, so that the size of the playgrounds might be increased. The entire site contained 5,742 square yards, or about one acre and a fifth. The price, including all expenses of purchase, was £3,372. The infant department was placed on the ground floor, and had seven class-rooms, giving accommodation for 511 pupils at eight square feet for each pupil; the juvenile department had one class-room on the ground floor and thirteen class-rooms on the upper floors, giving accommodation for 847 pupils; the total class-room accommodation was thus 1,358. To this accommodation had to be added a large swimming bath and gymnasium on the basement floor, a practical cookery class-room, a science-room, and a workshop or class-room for manual instruction situated in the boys' playground. Calculating this additional accommodation at ten square feet for each pupil gave 455, bringing the accommodation up to a total of 1,813 pupils. The heating and ventilation of the school had been carried out on the most approved principles. The entire building was heated by steam pipes. It is estimated that the entire cost of the buildings, including janitor's houses, will be about £24,500. The contractor was Mr. William Gerrard.

GLASGOW.—At the University, on December 1st, two memorial tablets were unveiled, the one on the main stair of the University, the other at the head of the stair, in honour of the late Lord Sandford, and Professor Veitch. The memorial tablets have been designed in the style of the Italian Renaissance. They are somewhat alike, both comprising portraits in half-relief, worked in white alabaster with a background of gold mosaic. The medallions are placed in richly carved frames, and are surmounted by entablatures carried by pilasters; the Veitch memorial differing mainly from that to Lord Sandford in the cornice being finished with a pediment, in the middle of which the arms are placed. The Sandford tablet has the arms in the centre of a carved panel below the medallion. The inscriptions are on the pedestals which carry the upper part of each design, and which in their turn are supported by corbels and a rather elaborate central ornament on which much of the success of the designs depends. The tablets are throughout of polished alabaster, the panels in the pilasters, frieze, &c., being filled with Powell's mosaic, chiefly consisting of delicate gold patterns on a red ground. The arms are in the same material, while the inscriptions are cut in slabs of deep-red marble. The use of coloured materials gives much brightness to the designs, and prevents their having too much of a monumental appearance. The designs are by Mr. J. Oldrid Scott, Architect, London, and the work has been executed by Mr. Bridgeman, of Lichfield.

GLASGOW.—In Smith Street a new riding chool has been constructed by the Glasgow Tramway and Omnibus Company, Limited. Among the chief features of the new school are the galleries and promenades, which are so arranged that all that proceeds over the floor space may be seen with ease. The length of the building is 220 feet, width 40 feet, and height fully 40 feet. Situated on the banks of the Kelvin, the building is supported from the river by eight iron columns 22 feet high, made fast to the rock. The flooring of the hall is of pine planks covered with concrete and asphalte, and the top dressing consists of a thick coating of sand and tanned bark. The Architect was Mr. Alexander Petrie, and the contractors as follows:—Engineer and master of works, Mr. John Baird, of the Tramway Company; ironfounders, Messrs. Moses M'Culloch and Sons; iron girders, Messrs. P. and W. M'Lellan; brickwork, Mr. John Porter; joiner, Mr. Thomas Whyte, Cambridge Street; plumbers, Messrs. D. and J. Carrick, Sauchiehall Street; slater, M'Ouatt and Sons.

GLASGOW.—On Saturday last, Mr. D. Bennet Dobson's High School Building Construction Classes visited the new sanitary chambers which are in course of erection there for Mr. Pyfe's Sanitary Department. Mr. A. B. McDonald is the Architect of the building, his assistant, Mr. Lockhead, conducting the students over it, those present numbering between 50 and 60. The building, which is almost completed, is to accommodate the large staff at present housed in the totally inadequate premises in Montrose Street. The Sanitary Staff proper, under Mr. Pyfe, occupies the ground floor, although the District Inspector's rooms are distributed over the whole building. Here also is situated the Vaccinating Department, under Dr. Carmichael, while the Epidemic Staff, controlled by Dr. Russell and Dr. Chalmers, occupy rooms on the first floor. There is a complete system of telephones, there being about 30, in addition to the public ones. The heating and ventilation is very complete, the latter being effected on the extraction system. Electricity is used throughout for lighting purposes. The building also possesses several new features, *i.e.*, a room for investigations of a bacteriological nature, a chemical laboratory, and an exhibition-room for showing the latest sanitary ware and appliances, while, in the courtyard, a refrigerating chamber and inspection-room for detecting diseased food have been erected.

LIVERPOOL.—The Earl of Derby, President of University College, is to open, on the 12th inst., the new "William Gossage" Laboratory, Brownlow Street, built by Messrs. F. H. Gossage and T. Sutton Timmis, at a cost of £7,000, as "a memorial of William Gossage, Chemist and Inventor, 1799–1877." The building just completed is in no sense an afterthought, but a carrying out of the original design by Mr. Waterhouse. Practically the Gossage Laboratory is in the centre of the College. The older part of the building contains the lecture theatre, with a complement of classrooms, a museum, rooms for the study of organic chemistry, water analysis, electro-chemical analysis, and furnace operations, a balance room, and professional apartments. The new part contains, in the first place, the main laboratory, with working benches, each fitted in a complete manner, for 44 advanced students. This spacious apartment has a lofty open-timbered roof, and both side and roof lights. It is ventilated in an unique manner. Over each student's bench is a ventilating hood, and all air entering the laboratory is forced through these ventilators, there being no other means by which it can escape. The hoods are adjustable, and so designed as to carry off all fumes. Opening off the main laboratory is a smaller room, containing a sand bath and other conveniences. Downstairs there is a classroom for technological chemistry, a preparing room, and a gas analysis room. The interior walls of the building are throughout lined with white glazed bricks, which conduces to light and cleanliness. The Gossage Laboratory is joined to the older part of the section by some necessary buildings, erected at a cost of £4,000.

MALDON.—A new Baptist Chapel has been erected in Crown Lane, and was opened last week. The building stands on the site of the old corrugated iron Chapel, which has been in use for 23 years. It is 54 ft. long by 34 ft. wide, and has seating accommodation for 250 worshippers. In the rear are two vestries, and a passage between leads to the schoolroom. The Chapel is built of stock bricks with red quoins, and the roof is covered with patent interlocking tiles laid diamond fashion, the arches to doors and windows are Gothic-shaped and of red brick, on the inside the windows have 4-inch label mouldings and stone linings over them, and all the arches have carved stone blocks at the springings; the windows are glazed with cathedral glass in lead frames. It is lined with white glazed bricks, the floor being composed of white glazed tiles, and is entered by steps on either side, which are covered with patent Silcon treads, laid in one piece on each steps. The work has been entrusted to Messrs. A. Baxter and Son; the contract price was £1,115. Mr. P. M. Beaumont was the Architect.

KEYSTONES.

THE movement to erect a statue to Mr. Cecil Rhodes in Bulawayo has assumed very large proportions in South Africa. It is stated that no less than £6,250 was raised in two hours by subscriptions for the erection of a bronze statue.

IN regard to the workhouse extension at Bridgend, in the rear of the present building, at a cost of £10,000, including land, it is stated that the Local Government Board will not sanction the erection of a new building in front of the present one.

A NEW organ, costing £600, has been placed in Arthuret Parish Church, Longtown, by Mr. J. P. Binns, of Bramley, Leeds, the cost being defrayed by subscription. At the same time alterations have been made in the Church to the extent of some £700 more.

THERE is talk of establishing in Venice a special school of Architecture. The old Venetian Architectural types answer perfectly to the requirements and character of the present day. From the time of the Byzantine, there are numberless and splendid specimens, and the Renaissance is a miracle of grace.

AT Heath Charnock, Lancashire, in the course of an inquiry into a proposal to borrow £500 to build a parish hall, it was stated that although there was a population of 1,100, and a rateable value of £8,000, there was neither Church, Chapel, nor school in the parish. The only public erection was a pillar letter-box.

A NEW gasholder, of 200,000 cubic feet capacity, has been erected at Barnstaple. Mr. J. West, Manchester, designed the new holder of 200,000 cubic feet capacity, and embracing all the latest improvements. Messrs. Willey & Co., Exeter, obtained the contract for the holder, and Mr. W. Sanders, Barnstaple, that for the building work. The cost has been about £5,000.

WORK on the long-projected Hudson River suspension bridge, connecting New York and New Jersey, will probably be commenced next spring. The bridge is to cost twenty-five million dollars, and will be twice the size of the Brooklyn Bridge, and accommodating six railway tracks, besides vehicles and foot-passengers. The bridge will take six years to build, and 3,000 men are to be employed on the work.

A MAN in Germany, accused of stealing motor power from an electric current company, has been acquitted on the ground that only a movable material object can be stolen, and electricity was no such material object. The company appealed against this judgment, but the superior court confirmed it. It therefore seems that in Germany anyone clever enough to tap an electric current for his own use can do so with impunity.

FROM beneath the Peel statue, which has just been removed from the bottom of Park-row, Leeds, a box containing a number of interesting relics has been found. Amongst the articles it contained was a penny, two sixpences, and a large roll of paper about 100 ft. in length, made up of sheets of foolscap gummed together, and containing names of susbcribers towards the £1,500 which the monument cost.

ONE of the greatest events in the history of Russia was the building of Petersburg by Peter the Great. The building of a new port and a new city at a place called Ekatrinograd, situated on the Musman coast of Lapland, between the White Sea and the Norwegian boundary, is likely to prove to be an event of almost equal importance. The work has been commenced under the supervision of the Muscovite Government, and a railway line has likewise been begun to connect the new port and city with Petersburg.

BUILDING TRADE EMPLOYERS' FEDERATION.

IN the Central Hall, Acresfield, on Tuesday of last week, the half-yearly meeting of the Lancashire Federation of Building Trade Employers was held, under the chairmanship of Mr. W. Cunliffe, President. The President delivered an address on "What ought to be the Policy of Employers of Labour in the Building Trade." Reviewing some of the force sand combinations which militate against the interests of the building trade, he referred to the effects of trades unions, which he said had benefitted very largely those who had availed themselves of the opportunity of membership. Wages and the conditions of life among the industrial classes had wonderfully improved during the last quarter of the century. Every skilled man ought to be paid reasonable wages for his labour, so that he and his children might be well clothed and properly fed and equipped for the great struggle of life. Employers in the building trade need not unduly agitate for cheap labour, but pay what the condition of trade would allow, always assuming that a sufficiently long notice for an advance had been given, say six months. Whilst trade unions had been of immense service in bettering the circumstances of the operative classes, and that without inflicting any serious disadvantages on the employers of labour, yet he was compelled to say that the tendency of these unions to-day was in some instances unreasonable and dictatorial, if not

POSITIVELY TYRANNICAL.

The speaker condemned as an infringement of free trade principles the restrictions on ready-worked or imported materials, for he held that it was the builders' prerogative to obtain his materials wherever and however he might think proper. Dealing with the relations of the builders with Architects, he spoke against the unfair use of priced schedules, the habit of tendering unless quantities were given, and the signing of a contract form which does not contain an arbitration and strike clause. What must be regarded as a growing evil was the tendency developed by Corporations to perform their own work, which had hitherto been executed by contractors. It was obviously unjust for a Corporation to use the ratepayers' money to compete with the contractor; yet this was being done, and the works department of the London County Council was now on its trial for mismanagement. The

EMPLOYERS' LIABILITY BILL

had a vital bearing on the building business, and while no employer of any moral character would hesitate for a moment to take every necessary measure for the security of the life and limb of his workmen, the Bill introduced by the late Government and passed through the House of Commons went far beyond that, and the House of Lords rendered a distinct service to the country when it refused to pass the Bill without emendation. He held, moreover, that no contractor should be considered justified in either tendering for or accepting extra work on a building unless the original contractor had completed his contract, and there should be no competition under those circumstances. The President also condemned the system of railway companies charging for cranage and wharfage, and in conclusion he said it had almost become a *sine quâ non* that a builder made no money. Why? Simply because he was in the hands of too many others, who were ever squeezing from him, in one form or another, the fruits of his best labours, and thus he enriched others without himself being enriched. The remedy for the worry and anxiety which seemed to have become the heritage of the trade was in organization—though, comprehensive, and complete, and he urged them to give a loyal and generous support to their Lancashire Federation.

AT the request of the Hackney Vestry, Mr. F. Hastings Medhurst, who acts as consulting engineer to several local authorities, has submitted a draft of a scheme by which the parish can be lighted by electricity by the utilisation of the refuse of the streets. Mr. Medhurst guarantees not only to produce electric light out of the refuse of the streets, but maintains that the vestry will be the recipient of a profit of nearly £2,000.

IMPORTANT NOTICE.

In order to facilitate the business of the

BUILDERS' JOURNAL

AND THE

ARCHITECTURAL REVIEW

large offices have been secured, and notice is given that on and after this date all communications should be addressed to

EFFINGHAM HOUSE,

ARUNDEL STREET, STRAND.

THE RECENT COMPETITION FOR THE CHURCH OF EMMANUEL, EXETER.

FROM the unsuccessful designs we have already seen in this competition, we are quite sure a grave injustice has been done to the majority of competitors. To prove this we intend publishing a selection of the designs in the course of the next few weeks. With a view to making this selection as complete as possible, we appeal to those of our readers who were competitors to send in their drawing at the earliest possible date.

Trade Notes.

MESSRS. CARTER AND CO., POOLE.

We had to-day an opportunity of inspecting the show rooms that have been recently opened by Messrs. Carter, at Essex Street, Strand. Specimens of their fabrics, in tiles, mosaics, and faïence are on every hand. Among productions, intended presumably for such as revel in startling colour, we observed some designs that might fitly satisfy tastes the most refined in grace of outline and harmony of colours, are combined in these examples to produce charming effects. We had also the pleasure of examining a large portfolio of special designs for tile and mosaic decorations, that are in contemplation or present execution. We were greatly pleased with a sketch for hearth and panels in tile work, after a Louis XV. design. We consider that our Architectural clients, when looking round for satisfactory work of this class, would do well to visit, among other firms, the show rooms of Messrs. Carter.

THE ASBESTOS PATENT "SALAMANDER" DECORATIONS.

An instance of the fireproof character of these decorations is given in the following extract from a recent issue of the Irish Times with reference to the decoration of the Burlington Hotel and Restaurant:—"The ceiling in the principal department consists of over 200 ornamental panels of asbestss, beautifully moulded. This portion of the decoration, like all the rest, has been executed by the firm of Martin & Sons, Stephen's Green. The ceiling some weeks ago was subjected to an extraordinary and wholly unforeseen test. When Messrs. Martin's establishment was partially destroyed by fire, the ceiling for the Burlington was in one of the workshops which was burned down. It was found, the day after the fire, that while everything had been completely destroyed by the flames, and that even solid metal pillars had been melted by the tremendous heat, the asbestos ceiling remained absolutely uninjured, and, having thus passed through this extraordinary test, it now looks down severely in all its pride and beauty upon visitors to the Burlington." This is the second case of the kind which has occurred within a short time, and it is not surprising that these new decorations are already finding much favour among Architects and superseding inflammable materials. We understand that the ceilings of the extensive new premises of Harrod's Stores, at Brompton, have been covered with the "Salamander" material, which is highly effective artistically as well as being fire resisting. It has also been adopted for the decoration of cabins in ships of H.M. Navy. The patentees and manufacturers are the United Asbestos Company, Limited, at whose wholesale depôt, Nos. 158 and 160, Charing Cross Road, a large number of designs may be seen.

ARCHITECTS, THEIR RELAXATION.*

BY JAMES SALMON.

IN choosing to speak of this department of Architectural life, you will imagine it to be the one with which I am most acquainted. Not so! It is rather with the object of studying a branch of our existence of which I have little knowledge, that I read this paper here to-night. The simplest living organisms cannot continually remain in a state of tension, still less can the higher forms of animal construction bear continual strain. How much more requiring relief is that most intricate of divine creations, a modern Architect, we, gentlemen only know too well. On the other hand, strong as is our need for relaxation, inevitable as it is that we must perish without it, how few are the opportunities afforded us, and how careless of using these opportunities are we. In these days, from the time a boy is weaned from school and enters the dry-nursing establishment of a practising Architect, to the day when he lies down to die amid the sneers of his fellows, and with his head beneath their flattering gravestone, his life is one of that continual tension which I consider so hurtful to any form of life. But there are exceptions. With some of our profession life is all relaxation; they golf, they shoot, they have been known to fish, and even in their offices they merely caricature Architecture, reducing its noblest features to ridicule or to the level of public appreciation. And now, gentlemen, I would present a claim for a middle course, one in which our life's business would be attended to and in which relaxation would occupy its due place. You will pardon me if I attempt to offer some suggestions as to how our leisure should be employed, the more so, as to many sitting here leisure seems a thing unknown, and the mention of pleasure suggests nothing more recent than their school days, or even those earlier memories of being dandled on their mother's knee. This may be your own fault. You hear one inward voice telling you to enter this or that competition, or study in this or that class, and another voice saying "Don't do these things." One is the voice of the tempter, the other that of conscience. But you may not know which is which. Many people persistently ignore the voice of their conscience. And with certain types of conscience it is the best thing to do. We cannot do more than glance at a few forms of relaxation to-night, but they will, I hope, be sufficient to show that the relaxation of an Architect is excusable, and that the neglect of it will severely handicap him in his work. The proper designing of every building requires an appreciation of certain things which an Architect gains outside his business, and it is to gaining this, that, in his leisure, he should be employed. Before particularizing, I would mention that few Architects have the opportunity of designing all classes of building. They drift on currents, taking advantage of every wind, but endeavouring to steer only to the shores where the gold lies thickest. So that the systematic enjoyment which I am about to outline would, with most of you, be confined to certain branches corresponding to the work which you may have to do. Our work and its corresponding amusements might be roughly classified as follows:—(1) The house, from which evolves the hotel, the restaurant and café (houses for those away from home); also, the clubs and the pub.'s, with their billiard-rooms and skittle-alleys; (2) the theatre and the public hall; (3) the Church, meeting-house, &c.; (4) the school and the college; (5) the shop and office; (6) shelter for the various animals used by man, as beasts of burden, in the chase, for consumption, &c. To design a house properly, you must design it to suit the ideas and habits of the man who is to inhabit it. It is not enough that it would suit you and your notions. To appreciate his habits, you must know him and his customs, and this means social intercourse with many persons. Of course, there are two or three hundred thousand people in Glasgow, who belong to one stock type, who have exactly similar ideas and habits. You only need to know one of these, and that not for long. If you don't happen to know one,

A GOOD RULE IS

* A paper read before the Glasgow Architectural Association, Tuesday, December 1st, 1896.

to give them plenty of plasterwork and raised mouldings. But there are still intelligent people bred in this declining world, and social intercourse with them will form one useful pleasure. To design an hotel, you must be aquainted with the methods of management and the customs of those who use them. Therefore, an Architect should use hotels as much as is necessary, to study the people for whom they are built. There are hotels of many classes, and money spent in an expensive hotel is not necessarily lost if you carefully note the manners of the inmates. If you take longer to your dinner than most, it is to be hoped that you know the height of the table which you sat at, and studied the motion of the waiter who served you, and if you adjourn to a café there are many points of design you can observe. Most Glasgow cafés attempt to outrival the Alhambra in Oriental magnificence, all with $\frac{5}{8}$-inch yellow pine and a common fret saw, and may in time save us a visit to the East. But I do not wish to embarrass Lord Salisbury by any allusion to Constantinople at this time. To understand club-life you must at least have been inside one. And it is as well to be a member of one or two. There are so many clubs for special purposes now-a-days that it would be impossible to be a member of all sorts, but with a town club, a political club, a golf club, a tennis club, and a swimming bath, you might acquire a rough knowledge of the useful particulars. We know that for an Architectural club, a room with a few forms and a lime-light lantern is enough. But there are signs that greater luxury will soon be necessary when we will break our timorous reserve and meet here on more intimate terms. To design a public-house you must have had wide experience, there are so many different kinds. You will find a certain interest attached to it. Billiards is a game extremely useful to an Architect, partly as a study in the ocular estimation of angles, and partly as the simplest way of discovering the requirements of a billiard-room. But, alas! many Architects play billiards who have never measured the length of a cue.

The Architecture of the Theatre

should encourage the sensations produced by the drama, should infuse gaiety or sadness, inspire mirth or tears, should be full of the abandon of the stage, and yet preserve the ancient conventionalities and traditions of the play-house. To do this an Architect must have tasted the excitement of a stage tragedy and joined in the laughter of a stage comedy. Besides the mental effect he produces by his design, he must study the physical comfort of the play-goers and learn their wants from personal observation. Concerts and dances you will also require to attend if you are properly to appreciate the feelings of those using public halls. With a Church it is somewhat different. By studying the remains of ancient ecclesiastical buildings, one feels impressed with what religious ideas once were. But if an Architect is to preserve in his Church any suggestion of holy worship, or to aid by his work any feeling of reverence, the less he knows of modern Churchgoers and the less he yields to their demands the better. When you think, however, that it is almost compulsory for many to attend Church, it should be your desire to mitigate their suffering by beauty combined with comfort.

Acoustics

are not nearly so important in a Church as the ministers seem to imagine. I will say nothing about school, college, shop or office. But the mention of the latter reminds me that in many Architects' offices, the assistants are in the habit of occasionally relaxing themselves. On the broad question of right and wrong let us say nothing; there is no doubt that this form of secret and surreptitious indulgence exists. I was at one time in an office where we sometimes engaged in a crude sort of shinty. The ball was a sample brick. One goal was the fireplace in the public office, the other the fireplace in the private room. We only played when this room was disengaged. Latterly the ball had to be muffled, owing to complaints from the servants' registry below. In C. and B.'s East End branch I have enjoyed a good game of golf. It varies somewhat from the Royal and Ancient, owing to the peculiar nature of the course. A dangerous hazard, in the shape of a lath and standard partition, blocks your first drive. This is now disappearing, and one should, with good sound play, reach the green in three. Do not suppose that I would supply a recreation ground with each office. No! One must design an office for business, and leave it to the resource and ingenuity of the assistants to invent a game suitable to its arrangements. In designing habitations for animals, the same familiar intercourse which I advise in the case of human beings is neither desirable nor necessary. A man could design a kennel without having lived in one and eaten dog-biscuits. At the same time, familiarity with the natures of the various animals you cater for is just as necessary as in the case of man. To illustrate the ignorance in some quarters, I heard an educated Architect say he had erected a house with hot and cold water and stable accommodation for two cows. I have, I think, said enough to show that an Architect must study many things outside his business, and that all time spent by him in various amusements may be adding to his information in a very practical manner, and is in many cases necessary to fit him to undertake with success the various commissions which may be offered him during his career. We are indeed Architects first, but human beings afterwards.

At a cost of £1,400, a new parish room has been erected in connection with St. Paul's Church at Smethwick.

A summary method of restoring pictures is to be put into practice at Salford. At a meeting of the Salford Town Council, it was proposed by a committee to "cut down and restore" the portraits, among a number, of Lord Stanley and Sir Robert Peel. In reply to a question from the Mayor, it was explained that the cutting down of the pictures only related to the removal of surplus legs, chairs, and so on, which were of no interest. These pictures took up a great amount of room, and in many cases the canvases were so badly cracked that it was impossible to restore them It was intended to reduce these pictures to kit-cat size, which would give them portraits down to the waist of these distinguished citizens, and the pictures would have a more agreeable appearance than they had with the present stretches of waste canvas.

PERSPECTIVE.

Answer to Student.

Put square M, N, O, P, Fig. 1, in Perspective. Draw diagonals N, O, M, P, Fig. 2. Through point L, Fig. 2, draw lines vanishing to right and left, cutting the sides M, N, O, P, M, O, N, P, in four points 1, 2, 3, 4. Take width of circle at base of dome from picture plane, Fig. 1, and set this up on Fig. 2, cutting diagonal O, N, in points 5, 6. Draw ellipse through 6 points 1, 2, 3, 4, 5, 6. Draw line through L to K, Fig. 1. Set up K as height line for top of dome, and perpendicular line through point L, Fig. 2. Take height to top of

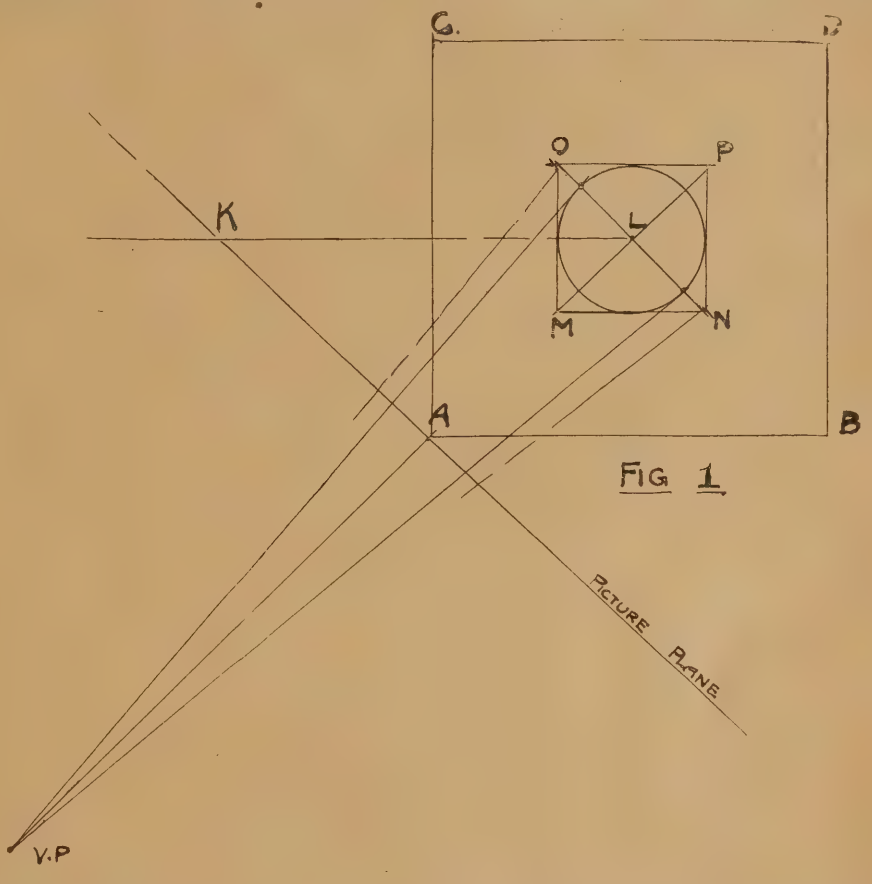


FIG 1

dome from elevation and set up on height line K, Fig. 2, and vanish to right, cutting centre line of dome in point E. You have now three points, E, 5 and 6; through these describe a semicircle, which is dome in Perspective. If "Student"

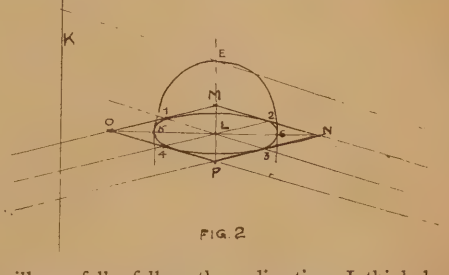


FIG. 2

will carefully follow these directions I think he will have no difficulty in understanding Perspective as applied to domes.

WM. N. CUMMING.

Mr. Alfred Shuttleworth, J.P., of Lincoln, has offered £1,000 towards the fund for the reconstruction of Lincoln Cathedral organ.

Much inconvenience is experienced in finding a railway route to New Orleans along which the covered bridges are high enough to permit the passage of the largest block of granite ever quarried in Vermont. The block is 15 feet square and 3 feet thick. It is intended for the noted Moriarty monument in that city. It was quarried in Barre, and has been moved to the dressing sheds. The weight of the block exceeds 50 tons. Investigations show that most routes have bridges too low for the block to pass through.

SOCIETY MEETINGS.

Birmingham Architectural Association.—In their report of the 22nd session, the Council of this Association states that the new members and associates number 17, and mention the work that is being done for Architecture in the city by the School of Art. A better testimony of the good work being done by the student members of the Association, the report continues, could not be afforded than the results of the national competition. One Queen's prize, four silver and two bronze medals, and two national book prizes, were awarded to students in Birmingham, who were associates of the Association. On the other hand, the educational work which is dependent upon the senior members suffered greatly from lack of interest, and it was even a matter of difficulty to induce members to preside at the meetings of the construction class. The power and willingness of each member to contribute to the work of the Association was, after all, a personal matter, and the secretaries would be exceedingly pleased to receive offers of help from members who are willing to assist. Great assistance would be rendered to the Council by a more punctual payment of subscriptions; for their work was much handicapped by want of funds, which were due but remained outstanding. Owing to this fact, no additions to the library had been possible. The report gives particulars of the various classes, and speaks of the continued interest in the sketching class, and the improvement in the number who join in the sketching visits, although this is not so good as it might have been.

Glasgow Architectural Association.—A meeting of this Associatton was held at the rooms, 187, Pitt Street, on December 1st. William T. Conner occupied the chair, and Mr. C. E. Whitelaw read a paper on French Renaissance. He gave a short historical account, speaking more particularly on the Chateaux, and instanced a number of best examples. He drew a comparison between the French Chateaux and our Scotch Castellated work. The former sumptuous and profusely decorated, the latter oftimes bare and meagre in the extreme. Mr. Salmon afterwards read a paper on "Architects—their relaxation," which we give in another column. The Architect must associate with the inhabitants before he can build a house to suit his clients. To design hotels, churches, theatres, &c., he should frequent these various places in order to fully understand the various requirements to do the work as it should be done. By this means he is not only indulging in necessary recreation, but is also (if he use his opportunities aright) increasing his facilities as an Architect. At the conclusion, a vote of thanks was accorded to both lecturers.

The Architectural Association of Ireland.—The ordinary meeting of this Association was held on the 1st inst., at the Grosvenor Hotel, to consider the rules of the Association and the syllabus for the ensuing year. The rules have been based on the London A.A. rules, and are almost identical with them. Mr. R. Caulfeild Orpen, President, was in the chair. It was resolved that the rules as drafted by the committee be adopted, and that the syllabus outlined by the committee be also adopted, and include the following:—Classes: Elementary and advanced building construction, elementary and advanced class of design, elementary quantities, estimating, and specification writing. Fortnightly lectures, with discussion, at which the following gentlemen have promised a paper:—Mr. T. Drew, "Architecture of Dublin"; Mr. W. G. Doolin, "Early Irish Art and Cotemporary Work on the Continent"; Mr. J. W. Bowcher, "Electric Lighting of Buildings"; Mr. W. Kaye Parry, "Drainage and Sanitary Construction"; Mr. Ald. Maguire, "Heating of Buildings"; Mr. F. Batchelor, "Hospitals, and Hospital Construction"; Mr. J. C. Buckley, "Mediæval Embroidery, and Character of Ancient Vestments"; also Messrs. J. J. O'Callaghan and Howard Pentland. Visits to buildings in progress are being arranged for Saturday afternoons. It was also resolved to admit country members at a reduced fee of 5s. per annum. The presidential address is to be delivered at the Grosvenor Hotel, on Tuesday, the 15th inst. The following prizes have already been offered, and conditions of same will be given in the syllabus shortly to be issued:—The Maguire Travelling Studentship, value ten guineas, for best set of measured drawings, the successful candidate to join the London A.A. Excursion of 1897; the Ashlin Prize of ten guineas, for the best design; the Slevin Prizes, first prize £5, second prize £2 10s., for constructional designs. The Association also intend to offer a prize for the best essay. Full particulars of the above prizes will be given in the syllabus, and will be open to all members both in Dublin and country. Mr. T. Drew has kindly promised to act as one of the judges of the prizes. The committee as elected are: President, Mr. R. Caulfeild Orpen; Vice-Presidents, Messrs. J. Howard Pentland and Joseph Holloway; Committee, Messrs. H. Allberry, F. Batchelor, A. I. McGloughlin, J. F. Macaulay, A. W. Moore, L. O'Callaghan, T. Coleman, M. J. Tighe, and J. H. Webb; Hon. Secretaries, Messrs. William R. Gleave and R. M. Butter; Hon. Treasurer and Librarian, Mr. Fredk. Hicks; Hon. Auditors, Messrs. W. F. Becket and T. F. Slevin.

Society of Antiquaries of Scotland.—The annual meeting of this Society was held at the National Museum of Antiquities, Queen Street, Edinburgh, on December 1st, Dr. James Macdonald, Vice President, in the chair. The office-bearers for the ensuing year were elected. It appeared from the annual report to the board of trustees that the number of objects of antiquity added to the museum during the year has been 613 by donation and 428 by purchase, while 179 volumes of books or pamphlets have been added to the library by donation and 82 by purchase, and the binding of upwards of 200 volumes has been completed. Among the more important of the donations to the museum are the large collection of objects obtained during the excavation by the society of the Roman station of Birrens, in Annandale, including several altars and important inscribed tablets, presented with consent of his Grace the Duke of Buccleuch; a series of casts and moulds of the sculptured stones of Islay, presented by Mr. R. C. Graham, F.S.A. Scot.; a finely-carved slab, with the arms of "William Erle of Gourie, 1587," from the old Gowrie House, Perth, presented by Lord Ruthven; and a series of pottery vessels from the graves of "the new race," recently discovered in Upper Egypt, by Professor W. Flinders Petrie.

THE old mill under Crooksbury Hill, in the hamlet of Waverley, near Farnham, from which Sir Walter Scott named his novels, has been destroyed by fire.

A NEW manager for the Works Department of the London County Council is being advertised for, at a salary of £1,500 a year. Mr. Holloway was paid £700. This is a jump, therefore, which doubles the value of the appointment.

IT is with pleasure we announce that the City of Manchester Corporation have placed with the Naval Construction and Armaments Company, Limited, Barrow, an order for the construction of a sludge vessel. She is to be somewhat similar to the six built by the company for the London County Council, and will be engaged in the conveyance of the sewage sludge from the Corporation's depôt on the Ship Canal to the Irish Sea.

THE committee of the Harris Free Library and Museum has arranged with the authorities at South Kensington for the 300 water-colour drawings which are on view at Southport to be exhibited at Preston for the next three months. The collection s illustrative of the rise and progress of the British school, and is selected for the purpose from the National Gallery of British Art at the South Kensington Museum.

ALTHOUGH Cleopatra's needle does not require annual painting or spring cleaning, it requires every now and then some preservative to enable it to withstand the corroding effects of London fog and smoke. It is fifteen years since it was doctored, and now it is being washed down preparatory to being treated with a patent solution supplied by the Indestructible Paint Company. The work of mounting the obelisk has been done by the London Fire Brigade with one of their fire-escape ladders. The solution has to be applied in three coats, and the operation will take about a week to complete.

Trade and Craft.

NEW DOCKS FOR JAPAN.

It appears that during the late war with China the Japanese Government requisitioned steamships on an extensive scale, and these vessels, used for military transport, will now be employed for commercial purposes. One new line of steamers has been opened between Japan and the United States, and another between Japan and Australia, both of them being under the management of the Japanese Mail Steamship Company. Another line will ply between Niigata and Vladivostock, while a fourth will do service between Hakodate and Korsokoff, the two latter being in private hands. The sailings of all four will be monthly. The opening of several other lines is in contemplation. In connection therewith various navigation companies are in course of formation, with capitals varying from 1,000,000 to 10,000,000 yen. The construction of docks is also being actively proceeded with. The Nagasaki Docks, owned by one of the Japanese companies, are undergoing important extension, and three new steamers are on the stocks. The Yokohama Dock Company is also opening a large new dock this year. Many plans for the construction of new harbours are under consideration. One of them, which is likely to be carried out shortly, is for Osaka, the so-called Manchester of Japan. It will cost about 3,000,000 yen.

SUIT OVER PROOF ENGRAVINGS.

Messrs. Cadbury-Jones and Company, fine art publishers of 60, Haymarket, S.W., sought in Westminster County Court to recover two guineas, the price of an engraving of a picture called "Dawn," by Warne Browne. The case for plaintiffs was that the original picture was exhibited at the gallery of Mr. J. W. Hancox at Seven Sisters Road, Holloway. Persons who went to view the picture were asked to subscribe twelve guineas for artist's proofs, or two guineas for engravings. The proofs were limited to one hundred copies, and the engravings were unlimited. Defendant, although a subscriber, refused to accept the engraving, as it was not ready for two years. Mr. Hancox had said "as far as he could tell" it would be ready in six months. His Honour considered six months was part of the bargain, and the claim failed. Two other actions of a similar nature were then withdrawn.

TRANSFORMATIONS IN THE LOCK TRADE.

At Willenhall, South Staffordshire, the lock trade, which is conducted in 500 workshops, large and small, and which gives employment to 4,000 hands, is undergoing just now some curious and interesting transformations. In all the cheaper classes of door-locks, the component parts—such as the latching and locking bolts—which until recently were made of wrought iron, forged on the anvil, are now almost wholly produced in soft malleable iron. Keys, too, the wards of which were cut by hand, are now almost entirely of cast iron, the wards being inserted in the rough castings with wonderful clearness and accuracy. These changes could never have been effected but for the marvellous improvements made during the last few years in the quality of English ironfoundry, which now compares favourably with the best American productions. One result has, however, been to practically destroy two skilled local industries. The forging of lock fittings and the cutting of wrought keys require considerable ingenuity and skill, and both these handicrafts are now practically extinct. The progress made of late in steel-stamping is leading to the adoption of neat and artistic frames for locks in the place of the old and homely square case. A great improvement has been made recently in the quality of the knobs and spindles put to Willenhall door-locks. The objectionable "small screw" for fastening the knob to the spindle has vanished from the scene, and the screw now in use entirely penetrates the spindle and holds it in tight grip. The motive power of the machinery used in the lock trade is undergoing a radical change. Steam-engines are going out of use, and the number of gas-engines now working in Willenhall is about sixty, with a steady and constant increase.

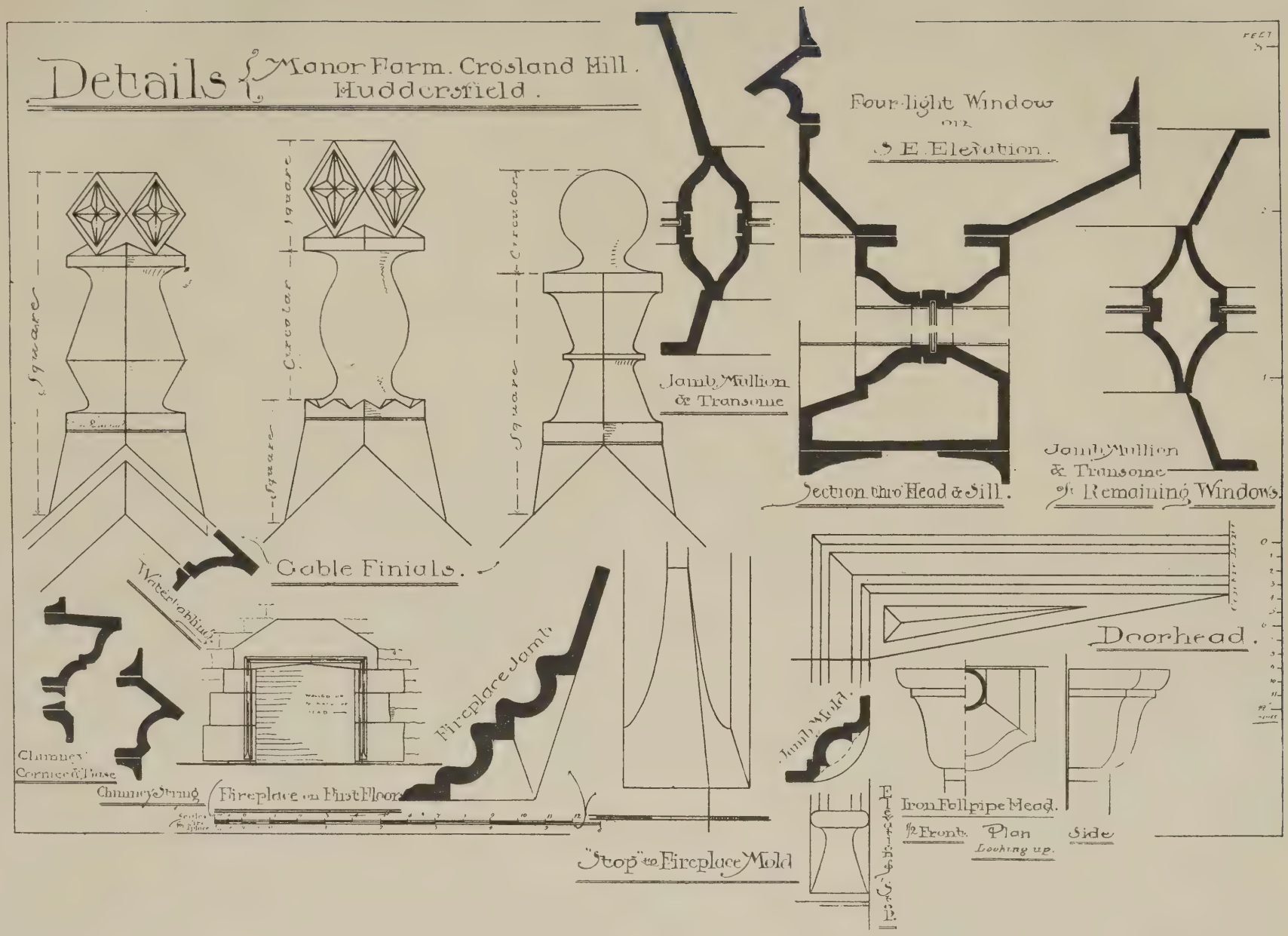
LIBRARY
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"Manor House" Crosland Hill Huddersfield



North West Elevation

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 97. **Wed., December 16, 1896.**

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Architects in Competition. Only the week before last, we called attention to the efforts of a certain party in the Southampton County Council to get round their own undertakings, and the decision of an assessor, appointed by themselves, that a local firm of Architects might be entrusted with the carrying out of the new Infectious Diseases Hospital. The matter has now been settled in a manner consistent with the dignity of the township—the award of the assessor has been voted, and the successful firm commissioned to carry out the work ; but within a few weeks has occurred just such another affair at Belfast, under very similar circumstances. The municipal authorities were disappointed that none of the three awards of the assessor should reveal the name of an Irish Architect, and they accordingly took it on themselves to supplement the award of the assessor with two other awards of their own choosing, of which designs, one, it seems, was in some manner known to be the work of the popular Irish candidate. As the conditions of competition were that three designs should be selected, and their submitters invited to compete for the final award, the addition of two other designs was in itself a great and intolerable injustice. Surely, when we view the irregularities of this nature that are so frequent and conspicuous, it would seem only proper and reasonable that Architects should combine to secure for themselves justice and a dignified regard in the processes of Architectural competitions. It is strange that when such treatment as the above is served to them that Architects have not come to look askance upon the whole subject of competition ; and it is strange that Architects should submit themselves to the open capriciousness of an assessing committee, in addition to the large element of pure chance that must always mar competitions in Architectural design. It is clear that a certain disrepute into which the profession has fallen in the public esteem, may be attributed to this condescension and submission of Architects in the matter of competition. It seems a ludicrous disproportion in our balance of life, that a Parish Council in some obscure country town, with a curate in the chair, should be able at a beck to call twenty Architects, or perhaps fifty (the record, as we heard a few weeks ago, is 450), to work gratuitously that the said Parish Council may pick and choose and avail itself of the talent and education of a score of professional men at the same cost as they might procure the local sanitary inspector to draw them a plan and attend to the correct laying of the bricks to the new wing of their parish school. Above and beyond this, the attitude of careless irresponsibility with which corporate bodies everywhere arrange competitions on the most paltry and evanescent occasions, and their high dictatorial tone to Architects, is a public indignity to the profession. Even in any other day than this of labour organisations and strikes, no apology need be rendered that a fixed understanding should be acknowledged mutually in the profession on this matter. As they are now conducted, Architectural competitions are an enormous expense to the profession. Disregarding altogether the value of time, and the pains expended by the competitors, and the long and expensive education by which they have qualified themselves to expend that same gratuitous time and pains, the actual money paid in cash out of the pockets of Architects in the conduct of their competitions amounts yearly to an enormous sum—a sum, indeed, which probably runs from hundreds of thousands of pounds to a million sterling *a year*. When, in the case of any particular competition, the total amounts paid away by the competitors in getting out their drawings exceed the cost of the work for which they are competing (and this, we are to understand, is no very uncommon event), surely it is then time that a general agreement and submittal to some scheme for mutual benefit and economy to the profession at large should be entered upon ! And surely, too, some action should be taken when Architects may see, as lately at Southampton and Belfast, the dignity of the profession trampled publicly under foot, and then hung out like a rag on a pole for public disregard, and the professional advice of Architects of repute beaten down and tabooed, largely by men of inconsiderable education or attainments. If some such active initiative step towards amelioration is to be taken, who is better qualified or equipped for the task than the Royal Institute of British Architects, which has won its established recognition of the profession as being the guardian of professional interests, and whose most reputable members are weekly subjected, as assessors in competition, to the figurative hoots and



CHAPTER HOUSE, DURHAM. FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

cat-calls of retail tradesmen squabbling in council. Let us hope that in the near future something will be done to remedy these evils, and set the profession in popular equality with those of Law and Medicine.

LISKEARD PARISH CHURCH.

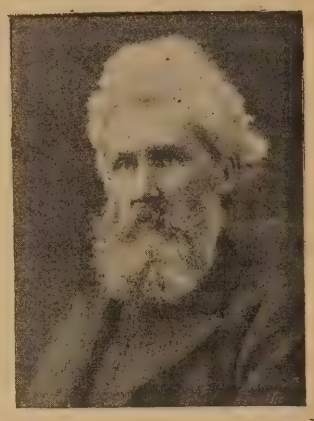
WE wish to call attention to a piece of Vandalism that is threatened to the fine old Cornish Church of St. Martin, Liskeard. The committee recently advertised inviting Architects to submit designs for rebuilding the tower. This feature is all that remains of the ancient Church, there is an interesting arch in it and windows of the Norman period. A well-known Church Architect reported on its condition some time ago, and was of opinion that it was quite unnecessary to pull it down, and estimated the cost of reparation at £800. The committee, however, want to spend £3,000 in a fine new tower. We therefore propose to ventilate this question in an illustrated article in the BUILDERS' JOURNAL of December 23rd, and trust we may awaken the authorities at Liskeard to the fact that they are responsible to posterity for the safe keeping of their Church.

PLYMOUTH BUILDING TRADE.

WITH reference to the request of the Carpenters' and Joiners', Plasterers', and Labourers' Associations for an increase of one halfpenny per hour in pay, commencing in May next, and also a revision of the code of rules, the Master Builders' Association has decided to agree to the request in May, 1898, and to allow other matters in dispute to be settled by arbitration. The Association has pointed out that many builders have contracts in hand which cannot be completed for, in some cases, over twelve months, and that a rise of wages in May would thus cause considerable loss to them. The Association also intends to insist that after the rise of wages, in 1898, no further demands shall be made for a period of five years, so that the masters shall not be inconvenienced by such short notice as in the present case.

THE LATE THOMAS GILDARD.

ON the 5th inst., about 60 gentlemen were present at the unveiling of the monument to the memory of the late Mr. Thos. Gildard. Amongst those present were Messrs. David Thomson, Alex. McGibbon, Wm. Tait Conner, John Thomson, John James Burnet, A. B. McDonald, A. Lindsay Miller, John Whyte (Master of Works), Francis T. Barrett (Mitchell Library), John Muirhead, Wm. Young, R.S.A., Jas. F. Dickie, James Biggar, Alex. Muir, R. A. McGillwray, A. B. McIlvride, John James, J. Ethelbert Gildard, Charles Eadie, Jas. S. Gray, Jas. R. Harper, N. McDougall, James Lockhead, Jos. E. Potts, Wm. Thomson, Robt. Campbell, Thos. Graham, Jas. Salmon, J. Holmes Sharp, John Paterson, A. D. Dean, Peter Smith, Jas, Carrick, and James Duthie. The monument was unveiled by Mr. David Thomson (Chairman of Committee), who said, when it was proposed that some suitable memorial of Mr. Gildard should be raised over his grave it was met with a generous and hearty reponse, and no difficulty was felt in obtaining the necessary funds. The Committee, to whom it was entrusted to procure a design and carry out the work, have, I think, discharged their duty in a suitable and satisfactory manner, and I will ask that the monument be now unveiled that you may see the result of their labours to embody your regard for an old friend, to hand down to future generations a record of his good and noble life The design for the monument was made by his nephew, Mr. Gildard; the granite work has been executed by Messrs. Peter Smith and Co.; and the medallion and tablet in bronze has been designed and executed by Mr. Wm. Sherriffs.—Mr. A. B. McDonald, City Engineer, said—I feel it a privilege to speak in eulogy of Mr. Gildard, and I do so with the knowledge that it is derived from the intimate and uninterrupted association of 25 years. During the whole of that long time my acquaintance with him was so close that I had unusual opportunity of seeing all the qualities that made up his interesting and striking personality; and it is no exaggeration to declare that he never exhibited a trait inconsistent with the reverence and affection which true worth inspires. The essential characteristics of his nature were not those which go to make a successful man of the world, but they were such as compelled the admiration of those who knew him best, and make us glad at this hour in the recollection that we possessed his friendship. Living under the burden of imperfect health he was invariably cheerful, and with restricted means he was ever ready to help others with a self-denial such as is seldom heard of. Mr. James Duthie, Secretary of Committee, read the following communication from Mr. Robt. Walker, who was



THOMAS GILDARD.

absent through indisposition:—"Mr. Thomson and friends—It is no melancholy event that is the cause of our assembling together to-day. With the death of a man who has finished and rounded off his life's work, and who leaves behind him an enduring remembrance in the affectionate respect of troops of friends, there are associated many consolations for those who have enjoyed and lost his pleasant companionship. No one did his part better in life than Thomas Gildard. Most of us here knew him intimately, and to know *him* was to know a man cast in a mould different from the mould that fashions much of the humanity of to-day. He belonged to the antique world. The hurly-burly of modern society affected him not at all. He stood aside from all its varied currents, and watched them play with a smile more of indifference than contempt. Contempt for any person, unless it was for meanness, Thomas Gildard never felt. His nature was too philosophic, his heart was too kindly. He was indeed a Nathaniel without guile, who never regulated his actions with any regard to his own interests, but altogether from what he believed to be the right or wrong of the course before him. His sympathies with Art and literature were strong and deep, they were a part of his very nature. He had cherished ideals, and these ideals had nothing in common with this decadent age. He wandered in fancy ever beside the Parthenon of Athens, or through the pleasant shades of Arden, Greek Art, Shakespeare, the Elizabethan dramatists, the English writers of the Augustan age of our literature; with them and in them he lived and moved and had his being. Of their inspiration he drank deep, and the frivolities and the badinage and the restlessness of modern literature left his heart and his brain untouched. In ignoring his younger contemporaries he may have been right or he may have been wrong, or partly right and partly wrong, as we all usually are in our judgment, but just because he was Thomas Gildard he had his own views and knew well how to defend them. In a quiet unostentatious way, that the outside public little dreamt of, Mr. Gildard was closely associated with the literary life of Glasgow of many years past. I may safely say that with every important club started here during the last fifty years with a serious literary purpose our friend was more or less intimately identified, and was always ready to undertake his share of the work, and to do it thoroughly. He wrote prose well, he had the accomplishment of verse. He was a contributor to the Weekly Citizen in its earlier days. He was the companion of all the men who were the literary lights of Glasgow forty years ago, and some of these lights shine steadily yet, in spite of the glare of all the meteor fires of to-day. While he could not sympathize with the modern movements, the ever-shifting theories regarding Art and literature, that, week by week, lay claim with strident voice and unblushing effrontery, each one of them on its own account, to be the final solution of the difficulties that have puzzled Artists and philosophers since the world began, Mr. Gildard was no bigot. He never refused to listen to a younger man's argument—it might not move him, but he gave it courteous attention. His outlook may have been called old-fashioned by some whose opinions, representing only the transient and surface estimate of things, will be old-fashioned to-morrow, but it was sane, healthy and dignified. With young men he had keen sympathies, and his courteous genial nature, with a certain pawky humour of his own, made him a favourite in every circle he entered. He belonged to a type of men of whom we have too few remaining. As I have already said, he was of the antique world—and the antique world, in courtesy, in tone and culture, in a knowledge of the graces and the right value of life, can give many a lesson to the present age, with its pessimism, its affected sentiments, and its dreary reiteration of weariness of the world and all the world contains that does not savour of the flesh and the devil."

Mr. A. Lindsay Miller proposed a vote of thanks to the Architect and Sculptor of the memorial stone, the Architect being Mr. R. J. Gildard, and the Sculptor Mr. Sherriffs, and said, the materials employed and their arrangement were the best adapted to resist the action of the weather, and in that way give the memorial stone permanence. There was great originality in the design. Mr. J. Ethelbert Gildard also spoke as the eldest representative of the family.

The monument is of Peterhead granite with bronze bas-relief.



It is most satisfactory to know that the committee had no difficulty in collecting over £100 in a very short time. About £50 has been spent on the monument, and a meeting will be called soon to decide as to the fittest way of disposing of the surplus.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

Gothic Foliage Carving.*

JOHN L. MYRES, M.A., F.S.A.

(*Concluded.*)

AN exactly similar series of changes may be noted in the foliage of brackets, corbels, and other carved members of the building, of which the most exaggerated example is afforded by the foliage equivalents of the thick-set dog-tooth ornament in the hollow mouldings. The dog-tooth elements grow larger and more prominent; they stand separate from each other, and become thoroughly undercut; then each begins to acquire serrated edges and a leaf-like structure; and, finally, they are replaced, either by an unsymmetrical crocket-like motive, or by a complete wisp of foliage which in the supreme examples from Lincoln Cathedral, retains still, in spite of its spiral arrangement, traces of the original fourfold symmetry of its dog-tooth prototype.

The types of foliage hitherto discussed are all derived immediately from the traditional forms of the capital itself, however much they eventually depart from it. But the comparative grace of the fully-grown early English convention could not but suggest the experiment of a really naturalistic study from actual leaves. Consequently in the latter part of the thirteenth century, and alongside of the conventional foliage of the earlier period, we find a fresh series of forms which are probably to be kept quite distinct. Of this naturalistic school we have a severe and early but most typical specimen in the fragments of the Shrine of St. Frideswide; it reaches perhaps its climax in the chapter-house of Southwell Minster; and persists, though with decreasing originality, and less constant appeal to nature in much of the woodwork, and some of the better stonework of the fifteenth century. Both capitals and finials of this natural foliage carving are well represented among the Ashmolean casts.

The zoomorphic instinct of the northern Romanesque carvers leaves its trace in the occasional appearance, in early English capitals, of human or animal faces peering out among the foliage, and in very rare examples of animal forms as accessories. This tradition could not but be amplified, and made full use of by the decorated naturalism: and not only faces and busts, as in St. Frideswide's shrine and the capital from Bridlington, but also birds, serpents, snails and insects are introduced to add verisimilitude to the foliage. The use of the snail almost as a naturalistic volute is well shown on a capital in our collection, and on a fine decorated miserere on the central stand.

The employment of flower and fruit forms, which becomes common about the same time, is of course more nearly related to the grand idea of the foliage itself.

But the conventional foliage of the early English, as already hinted, does not disappear before this naturalistic work; the loose and elaborate compositions of leaves and flowers were obviously unfitted for many positions in which foliage of the conventional kind was in common use; and the latter continued to be usual where it was a question of filling a confined space, or where, as in the case of crockets, the repeated ornaments were too conspicuous architecturally to allow full scope to the student of natural forms. The series of crockets in our collection does not include one really naturalistic example, though some of our finest examples of plant portraiture are in the form of finials. In the same way, though maple and oak patterns are not uncommon on diaper backgrounds or panellings, they are only admitted because of all the plant portraits in vogue they lend themselves most readily to a symmetrical arrangement. The result is that these flat-leaved plants demand and create a flat-leaved canon of foliage, while the necessity of securing an evenly filled and superficially compact surface leads to the adaptation of the leaf to the space which it is to adorn, in a way which precludes really naturalistic treatment. Consequently, in the later part of the decorated style, even in capitals and detached masses of foliage, a compact and garland-like treatment of the details sets in, and is accompanied by a meagre, angular, and hard-edged treatment of the constituents of the design, and on a much lower gauge of relief, wholly analogous to that which has been noted already in the later stages of the classical decadence. And this treatment comes in almost together with the relapse from flowing tracery into the rectangular spacing of window openings and wall faces which marks the beginning of the perpendicular decline.



NATURAL FOLIAGE, HEXHAM.

Thus even before the list of identifiable plants has reached its fullest, and at the very time when foliage cornices and borders begin to be characteristic, the rendering loses its vigour, and only produces its best work when it treats flattened and close-clinging subjects, like the vine and the hop, which remain characteristic of stone and wood foliage of the fifteenth century. In the same way, the ball flower, which itself probably represents an afterthought of the dogtooth, opens only in time to become either a flat, square four-petalled flower of conventional proportions, or later, a merely heraldic rose which might equally well stand for a dahlia or a paper favour.

It is true, of course, that a part of this decadence is due to the diversion of the sculptor's attention to more ambitious subjects; on the misereres, certainly the relapse of foliage into conventional and merely decorative forms coincides very nearly with the full development of animal and human figures and groups; but though this may explain, it does not alter the fact that from the end of the decorated onwards, Gothic foliage carving, if not by any means extinct, has ceased to be a living Art, and has relapsed into an accessory and mechanical routine.

This survey has been short and diagrammatic, because it has only been intended to be introductory to a close individual study of the collection of casts in the mediæval room and I propose, at the end of such discussion as may profitably be carried on in this room, and without the examples before us, to transfer this meeting to the mediæval room, where there is ample material for suggestive criticism.



NORTH PORCH, BRIDLINGTON, FOLIAGE CAPITAL. FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

[Through the courtesy of Messrs. Philip & Son, of Fleet Street, London, we have been enabled to reproduce many of the illustrations used by Mr. Myres.—ED.]

* A paper read before the Oxford Architectural and Historical Society, as an introduction to the study of the newly-arranged collection of Architectural casts in the Ashmolean Museum.

IN the case of the Hull engineers' dispute the Board of Trade has been successful in bringing about a settlement of a struggle which had aroused very bitter feeling, and which threatened to affect many more than the 600 workmen immediately concerned at the works of Earle's Shipbuilding and Engineering Company (Limited).

DUNDEE INSTITUTE OF ARCHITECTURE, SCIENCE, AND ART.

PRESIDENTIAL ADDRESS BY LESLIE OWER, F.R.I.B.A.

IT is set forth in the constitution of this Institute, that the opening meeting of each session shall be a conversazione and exhibition of drawings. Fortunately, the framers of those rules did not fix any dimensions for the address, neither in length nor depth, and to-night I hope to bring before your notice some points of importance to the welfare of the Institute, and, above all, I earnestly desire to enlist your sympathies in its work, and to invite your hearty co-operation in carrying out the objects it has in view. "The object of the Institute is to afford facilities for the study of Architecture, the applied Sciences, and the fine Arts, by means of papers and discussions, sectional meetings, classes for study, prizes, visits to public works and buildings —ancient and modern, excursions for sketching, and such other means as the Council may determine." To show to what extent our Institute is endeavouring to carry out this pretty extensive programme, I crave your indulgence for a few minutes to recapitulate the work of the past session, and I hope, in doing so, to influence some who have not taken advantage of the lectures and excursions, to avail themselves of the opportunities in the coming session. I feel sure that they will find them most enjoyable, and I may also say that their presence and appreciation would be some reward for the considerable trouble which the organising of these lectures and excursions causes to the office-bearers, and especially to our indefatigable honorary secretary, Mr. J. J. Henderson. There were two lectures delivered during the session: one by Mr. Harry W. Chubb, on "Locks and Safes," and one by Dr. Templeman, on "Sunlight, in its Relation to Sanitation." As to the educational side of our work, the prize drawings sent down from the Royal Institute formed a most instructive exhibition, and the advantage to the students of Dundee and district of seeing those works can hardly be over-estimated. Our Institute has also charge of the Royal Institute district examinations for students, and eleven candidates were registered as probationers. We also offered prizes for drawings in six different subjects, and I am glad to say that a greatly increased number of competitors came forward. Many of the works were of high merit, and it is satisfactory to the Council to believe that those competitions have a stimulating effect on the young men studying Architecture and Art in Dundee and district. In June, a most enjoyable excursion was held to Aberdour and Inchcolm, Donibristle House and the ancient Priory of Inchcolm forming the chief objects of interest. A matter of some importance has engaged the attention of your Council and a small committee for some time past, and that is the revision of the rules for the measurement of building work, as desired to be amended by the Master-Builders' Association. On the whole, I may say that the points of material difference between the Architects and tradesmen are not very numerous, and, I have no doubt, will be arranged amicably. The rules have now been revised, and returned to the Master-Builders' Association for their reconsideration.



CAPITAL FROM BISHOP ALDUNE'S CHURCH, DURHAM.



BYLAND ABBEY.

OFFICIALS DOING PRIVATE WORK.

Another point which engaged our attention was the amount of private work being done by salaried servants in the municipal offices. It was felt that those servants, in order that they should hold a fair and impartial position in the discharge of their duties, should not entangle themselves with private interests, and use their positions to gain an unfair advantage over the private practitioner. Thanks to ex-Lord Provost Hunter, this has, to some extent, been remedied, at least for the present, but it would be a most desirable rule as well in the interests of the public as of the profession, and one which might be embraced in the new Corporation Bill, that all plans presented for the approval of the Council should bear the signature of the Architect, engineer, or other person who has prepared them, so that the Council may know whether or not they are the production of a man of repute and skill in his profession. A sad accident lately showed the necessity of such a regulation. Thus you will see that our Institute is working away, quietly it may be, but we hope steadily, so far as its means and opportunities will allow. It is there ready to represent the interests of Architecture and Art when occasion requires, and as it has proved its power of usefulness in the past so we feel sure it will do in the future, for from time to time questions will arise and are now in view, requiring the united voice of those interested in the profession, and I appeal to the members of this Institute not to stand indifferent to its ordinary work, but to support it in all its efforts, so that when an important question has to be faced, the Institute may be found strong, vigorous, and united. In union there is strength, in jealousy and separation there will be loss and oppression. The question of a general union of the practising Architects of the kingdom, is one which affects the welfare of the profession very deeply, and a movement is now going on in the large centres of England—Liverpool, Manchester, and Birmingham, in particular—which it is to be hoped will prove productive of some step towards the attainment of that very desirable end. It is to the R.I.B.A., in London, that we all naturally look for light and leading in this matter, but while not finding fault or imputing blame to anyone, the fact remains that the result of the policy and management of that body has been that only a tithe of the practising Architects are within its membership, and that in the whole of Scotland, there are only this year sixteen Fellows of the Royal Institute and thirty-eight Associates. It is much to be desired that the pressure now being brought to bear upon the Royal Institute may result in the opening of its doors to admit all reputable practitioners who have been in practice for not less than seven years. Thus would be brought about what would practically be

A SYSTEM OF REGISTRATION,

for no Architect worthy of the name would be found outside the Royal Institute. All professions are united for purposes of advancement and protection, and it is not creditable to the Architectural profession that it should be behind in this matter. We ought to take a hint from our friends the plumbers and not rest until the whole profession is welded into one body, with local branches in the more important centres. Thus united, the profession would be able to make its influence felt for good in many ways, but until this union is accomplished it cannot hope to attain that position where it would command the respect and confidence which its importance warrants. Had the Royal Institute espoused the bill for registration of Architects instead of opposing it, the profession would have been, even by this time, in a very much stronger position than it is. As to the influence of our local institute I think possibly we have been remiss in not making our voice more heard in matters affecting the Architecture and the amenity of our city as well as in other professional questions. We have from time to time tried, I am sorry to say as yet with not much result, to get committees who issued conditions for competition plans to make those conditions more fair and in accordance with the suggestions of the Royal Institute. In municipal matters, this Institute must regard with pleasure the laying out of the Barrack Park so far as it has gone, and anticipate the proposed improvements at Sea Braes and at the west end of the Magdalen Green, as matters affecting the beauty and amenity of the city. Such improvements repay their cost indirectly by



FOUNTAIN ABBEY, NARTHEX, CUSHION CAPITAL.

inducing people to build and to reside in the improved localities. Our municipal rulers could help forward the cause of Architecture by encouraging building in the suburbs through extensions of the tramway system and by the formation of new streets. A subject of importance to all interested in building in Dundee, and one to which your Council would invite your closest attention, is the proposed Municipal Bill which the Town Council have now resolved to proceed with. It seems to me very undesirable that this Bill should be rushed through in the limited time now left for its consideration. Such an important measure should be drafted and published for the consideration of the citizens before it is lodged in Parliament at all, and time should be given for its consideration and for the Councillors to meet with their constituents and hear their views. No private citizen is likely to bear the expense of opposing any clauses in the Bill once it is lodged, and laws may be made which may bear harshly and unjustly on certain of the citizens. As an instance of what I mean, in a former Bill it was proposed that not only the building owner should be responsible for carrying out his building to the satisfaction of the Police Commissioners, but that his agent who represented him, such as his lawyer or Architect, should become personally responsible to the Commissioners as well. This absurdly unjust clause was withdrawn, thanks to the action of a few of our leading lawyers, but what was attempted before may be again. I think we are justified in believing that the wider diffusion of education and wealth is causing a more general

APPRECIATION OF BEAUTY

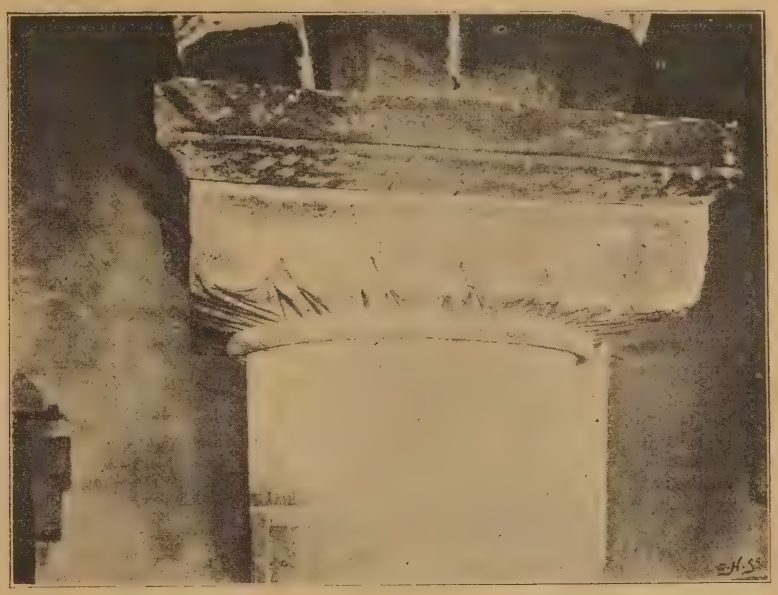
and fitness in Architecture, and that Architects and Artists will be permitted greater scope for the exercise of their Arts as time goes on. Even as a commercial speculation people are beginning to find that a little money laid out judiciously to enhance the appearance of a building, be it church, dwelling-house, or business premises, is not thrown away. The same applies to cities, towns, and villages. The more attractive they are made the better for the locality and for the prosperity of those interested in it. The tastes and manners of the people mould their Architecture and Art, and they again by a reflex action influence the tastes of the people. But men must be fired with noble enthusiasm before Architecture can arrive at its greatest perfection amongst them. It was during the War of Independence in Scotland, about 1300, when Wallace fought and died, and Bruce led his armies to victory and his country to freedom, when he had the courage to send his spirit-stirring message to the Pope, "It is not glory, it is not riches, neither is it honour, but it is liberty alone that we fight and contend for, which no honest man will lose but with his life"; it was in times like these and by men like these that Arbroath Abbey, Kelso Abbey, Glasgow Cathedral, St. Andrew's, and Holyrood were built, through the piety of the people, purified and stimulated by hardship and struggle. Religion has always been the foster-mother of Art, for it has been when men were deeply stirred by religious zeal and noble purpose that the highest Art has had opportunity to find expression in noble works. It does not fall to the lot of many of us to erect such buildings as I have mentioned, with "cloud-capped towers and lofty pinnacles," but let us strive in all our works to be enthusiastic and zealous to carry on our Art in a devoted and humble spirit. As a preacher to reach the hearts of his hearers must forget himself and only proclaim his message, so must the Architect to reach the perfection of his Art have no thought of self, but only of his work. By this means only can he attain the highest, for "nearest the throne of God must be the footstool of humility." In all our Architectural efforts, while endeavouring to the utmost of our ability to be original, let us beware of the danger of becoming eccentric. It is a poor spectacle to see an Architect deliberately sacrifice beauty and proportion in his design for the sole purpose of proclaiming his own little individuality. Better a pleasing, if somewhat common-place, design, than one which will only call forth a half-contemptuous remark on its extraordinary appearance. Ruskin says, "All great nations write their autobiographies in three manuscripts - the book of their deeds, the book of their words, and the book of their Art." It is our privilege, as it is also our responsibility, to bear a part in writing the history of our nation—the greatest nation of the earth—in the book of her Art. Let us take care what we write and how we write it. The buildings we are erecting will live long after we have passed "to where beyond these voices there is peace," and they will influence the coming generations for good or evil. By

THE KIND OF BUILDINGS

we erect future generations will judge of the spirit of our age, they will learn our pursuits and gauge our aspirations, our ambitions, our hopes, our fears, our religious beliefs, as we may read the character of a man in his countenance. By the skill shown in their construction they will judge of our knowledge, and from their beauty and fitness they will estimate the level of our Art. Let us, therefore, strive in writing our little page in the book of our nation's Art to "Design with Beauty and Build with Truth," so that those coming after us may read it with pleasure and, it may be, with profit, and we shall have the satisfaction of thinking that we have laid a stepping-stone in that great staircase up which the Arts are ever climbing, and whose top is only to be reached at the throne of Him who has made "all things beautiful in His time."

SOME ENGLISH CATHEDRALS.

IN the large Lecture Theatre of the Birmingham and Midland Institute, a lecture, illustrated by limelight views, was recently delivered by Mr. A. Darbyshire, upon the subject of "Some English Cathedrals." The remarks of the lecturer explained a set of magnificent views Mr. Copland had photographed, in the majority of cases, to represent some detail or constructive feature peculiar to Gothic Architecture. Mr. Darbyshire, before explaining the large number of lantern pictures, made a few observations upon the Architecture of the world anterior to the Gothic Ecclesiastical Architecture. He passed over the Art of archaic ages, and commenced with that of Egypt; and, after giving illustrations of the early Architectural Art, and speaking of the edifices representative of the Art and civilization of great historic epochs, he dealt with Cathedrals in various parts of England. There was not to be found in England, or scarcely in the world, he said, an Architectural picture so beautiful as the view of Durham Cathedral from the river. There it stood, on its rocky eminence, a monument of the early phase of Christain Art in this country, and it might well be chosen as an illustration of the Norman work which constituted the foundation of English Gothic Architecture. After giving the history of this cathedral, Mr. Darbyshire turned to the Cathedral Close of Salisbury, and described the building as the gem of the Early English period of Gothic Architecture, and to the Cathedral of Lincoln, remarking, after giving many details of the building, that one of the finest poems ever written in stone was the Lady Chapel, which formed the entire east end of the Cathedral, and which was a grand example of the transition from Early English to Decorated Gothic. This lovely work was the medium through which English Ecclesiastical Architecture glided, so to speak, into that glorious Edwardian Gothic in which our national Architecture reached the acme of beauty and the meridian of its truth. The characteristic features of many other well-known Cathedrals were explained, and the lecturer concluded by saying that there was nothing in the history of Art so beautiful, so truthful, and so majestic as a Gothic Cathedral, and let it be borne in mind always, he said, that the Gothic Architecture of the Cathedrals of England had an individuality distinct from the Gothic of other countries. It had maintained that individuality from the moment it took root in the soil. It was pure in thought and refined in conception, it was truthful and beautiful. Truly, the old mediæval builders had left a legacy rich in honesty, truth, and beauty.



STONEGRAVE, CUSHION CAPITAL. FROM A PHOTOGRAPH BY MESSRS. PHILIP AND SON.

AT the monthly meeting of the Perth Town Council, a memorial signed by 243 ratepayers, against the proposed new bridge was read, and excited a stormy discussion. In the end, the opposition memorial was defeated.

FROM Dublin we learn that a large portion of the College of St. Columba, Rathfarnham, has been destroyed by fire. The old dormitory, the warden's residence, and the Chapel were saved. It is supposed that the fire was caused by the over-heating of a flue.

THE fire which broke out in the tower of St. George's Church, Hanover Square, and the water used to quench the flames, had the effect of ruining the organ, so a new Hope-Jones electric instrument, at a cost of £1,816, is to be built on the same principle as the one just destroyed.

THE Liverpool and Lancashire Transport Company instructed their surveyor to report as to using Liverpool and Manchester highways for motor traffic from the ship's side to the warehouses in Manchester. The surveyors have just completed their task, and report the suitability of these roads for motor traffic. It is calculated that merchandise can be carried between the two cities at one-third the present railway rates.

To meet the heavy expenditure of the proposed new pavilion at the Oval, the Surrey Cricket Club will utilize their invested capital of £12,000, and they propose to raise the remaining £8,000 by means of debentures, which will be paid off during the term of the new lease. The Surrey committee long ago decided to build a new pavilion as soon as they secured a fresh lease, and with this object in view they have for years put aside as much money as possible.

ECCLESIOLOGICAL NOTES FROM NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

(Continued.)

THE work on the exterior of the aisles of the Dom at Halberstadt is excellent, ranking with that at Strasburg, Freiburg-in-Breisgau, and the choir at Cologne; but a weakness is noticeable in the clerestory, where the windows, unprovided with drip-stones, and the unenriched wall space which they pierce, have a bald appearance hardly redeemed by the flying buttresses.

The boldly projecting transepts have a light flêche at their junction with the nave and choir, which latter terminates in an apse, having a procession path with a solitary Chapel projecting from its eastern side. Such an arrangement is a particularly interesting departure from the usual German one of a tall aisleless apse in a district remote from French influence. Inside, the Dom at Halberstadt is most elegant, and although it has been in Lutheran hands since the middle of the sixteenth century, has retained, in great completeness, such of its mediæval furniture as the magnificent rood-screen, the choir stalls (upon which still rest the old office books), the episcopal throne, stationed, as is the one at Naumburg, with its back to the rood-screen, several fine old standard candlesticks of three branches each, and much fine tapestry on the walls behind the altar and choir stalls; while, in the sacristy, a long gallery forming an outer south aisle to the nave, is perhaps one of the most superb collections of vestments and plate (unused here since the Reformation) in northern Europe.

The absence of triforium in this great Church at Halberstadt, as well as in several other German Churches of the "Transitional"* and Complete Gothic epochs, is somewhat unpleasantly conspicuous. It is curious that, while the Architects of the Rhenish provinces should have lavished so much constructive skill and ornamentation upon their Männerchöre, this beautiful adjunct to a Middle Pointed Church should, in other districts of Germany, have been omitted altogether or else made quite a subordinate feature of. The bare expanse of wall between the pier arches and the clerestory in the "Transitional" naves of Osnabrück and Naumburg; in the Early Pointed naves of Magdeburg and Freiburg-in-Breisgau; and in the Complete Gothic ones of St. Laurence at Nuremburg, the Minster at Ulm, the Minorite Church at Cologne, and St. Foilan at Aix-la-Chapelle, is very displeasing to the eye accustomed to the richness and importance of such triforia as Durham, Lichfield, Lincoln, Westminster, Amiens, Rheims and other great examples of the thirteenth and fourteenth centuries in England and France. Sometimes in Germany we find the triforium a continuation of the clerestory, as, for instance, in the Cathedral at Ratisbon and the Stadt Kirche at München Gladbach. The best and most developed triforia are those in Cologne and Strasburg Cathedrals.

Although the blank wall space over the pier arches at Halberstadt is not quite so disagreeably forced upon the observer as in the examples above quoted, it cannot be denied that an interval of arcade work, blind or pierced, would have imparted additional elegance to the elevation. Here the arches spring from slender attached shafts placed in triplets, with their capitals delicately carved in foliage. In the later Complete Gothic of Germany these elegant clusters of shafts gave way either to others exhibiting much clumsiness and poverty of detail, or to tall octagonal piers from which, without the intervention of a capital, the mouldings of the arches, and, in unclerestoried Churches, the groining ribs, spring. Such a type of pier occurs in the great Marien Kirche, overlooking the markets at Halle, in St. Martin at Hildesheim, and in the Churches of the Franciscans and Dominicans at Halberstadt. St. Martin at Hildesheim, now a museum, is one of those splendid middle-pointed Churches which the monastic orders were so fond of rearing in the great German cities during the fourteenth century. It consists of an unclerestoried nave with a north aisle only, which is contained beneath the same long slope of tiled roof, and lighted by windows whose tracery is among the best and most pleasing of its epoch. The two great Churches built by the Franciscans and Dominicans at Halberstadt, although of the unclerestoried type, are far more satisfactory than the Westphalian examples of the same class, on account of their moderation in height and to the greater depth given to their aisleless choirs. A light flêche for the bell at the commencement of the choir alone breaks the long line of roof in these Churches. In each instance the proportions of the apse are of the greatest elegance, but unfortunately the general effect is marred by their windows, which, as well as those in the choir of St. Martin in the same town, exhibit tracery of so eccentric a character that one cannot think without difficulty how a people who invented such a grand style as the Rhenish one, and who gave us such Churches as Neuss, Bonn, and Gelnhausen could have perpetrated such vagaries in stone as rectangular tracery and rectangular heads to the lights, to say nothing of the introduction of an untraceried circle into the whole width of the window, and cutting into the mullion at rather more than half its height. The outline of St. Martin's, one of the Churches at Halberstadt in which these absurdities occur, is a curious combination of the "hall" and clerestoried type. Nave and aisles are contained beneath a continuous slope of heavy roof. Then comes a transept, with, beyond, a chancel having clerestory, lean-to aisles, and regulation apse containing the windows just animadverted upon. There is perhaps a certain Teutonic picturesqueness about the *ensemble*, but the heavy mass of leaden roof at the junction of the transepts and choir, dictated of course by the combination of plan alluded to above, is very offensive, and revolts completely against English canons of taste in such matters. The western towers surmounted by spires of unequal height, and connected by one of those wooden bridges of which examples existed not so very long ago at Boppart and Limburg, are picturesque, and the stilting up of the western gable far above the line of the nave roof to give greater dignity to the façade, is curious if not quite beautiful. Between Halberstadt and Erfurt is the highly interesting Church of Naumburg, the seat of a Bishop until the town, like Halberstadt, accepted the Reformation in the middle of the sixteenth century. The Lutherans, however, in whose hands the Church now is, have restored it very judiciously, and it is regarded with much pride by its custodians, who, by the way are intelligent, and not at all officious or obtrusive. In its original "transitional" form —the nave and transepts* date from c. 1200, the great Church-building age in Germany as elsewhere—Naumburg Cathedral must have borne a considerable resemblance to the double-apsed Churches of the Rhineland. The western apse seems to have been rebuilt during the later part of the same century (c. 1260) in a very elegant geometrical style, its lofty windows having no cusps to their lights, but traceried, like those at Westminster and Rheims, with a large foliated circle.



OSNABRÜCK CATHEDRAL. SKETCHED BY W. A. HANSON.

Perhaps half a century later the eastern choir was rebuilt upon the same place as we now see it, the three-light windows of its apse having tracery composed of small trefoils, and the capitals of its vaulting shafts delicately foliaged. On the whole this eastern choir at Naumburg bears a striking resemblance to the Lady Chapel at Lichfield, but instead of terminating hexagonally it does so triangularly, that is to say, in the centre portion there are only two windows instead of three ordinarily seen. Describing this eastern choir internally, it would, perhaps, be more correct to state that it has an oval termination.† Naumburg Cathedral is the possessor of two Lettner or Rood screens—a Romanesque one dividing the nave and transept from the eastern choir, while a First-Pointed one, exhibiting much beautiful carving of that epoch, encloses the western choir. The eastern choir is much raised above the nave. Like those at Paderborn and Hildesheim, it is approached at the sides by flights of steps in the transepts, across which, in the manner usual in Germany, the chorus cantorum is carried. The crypt, which renders this arrangement of steps

* This term is rather a misnomer, as that mingling of Pointed and Romanesque so prevalent in Germany, did not, like our Transition of Canterbury choir and the round of the Temple Church, lead to a perfected and complete style. It has been used here more for convenience sake.

* This part of the Church seems to have been inserted between two apses of a date much anterior; the crypt below the east choir testifies this.

† The late Mr. G. E. Street visited Naumburg (when the Church was in its unrestored state) in 1854, and has recorded his impressions of this, one of the most extraordinary German buildings of its kind, in "The Ecclesiologist" of that year. Mr. Street seems to have been much struck with the oval shape of the eastern apse, for he reproduced it, with modifications, in his Church of St. Saviour, Eastbourne, finished about 1870.

necessary, although not very extensive, abounds in much fine Romanesque detail.

At Erfurt, the work in the majority of its 16 Churches, about equally divided between the Catholics and Protestants, is Middle-Pointed of the fourteenth century. The Catholics retain the grandly situated Dom* and St. Severus, besides some six others in the lower part of the town, while the three noble Churches of the Dominicans, Franciscans, and Augustinians, are held by the Lutherans, as well as some smaller ones of less interest. Clerestories are frequently met with, and the square eastern termination, lighted by tripled lancets, quite in the English fashion, is not uncommon; but the transept is curiously absent.

The Dom and its next-door neighbour, St. Severus, have between the nave and choir a species of elongated tower surmounted by a triplet of spires, while the great Churches of the Orders have their tiled roofs unbroken, the bell turret in every instance being located against the wall of the clerestory, in which position it marks the commencement of the choir. The Dominican Church (Prediger Kirche), and the Franciscan Church (Barfüsser Kirche), have many points in common, notably the clerestory, and the lofty, but somewhat narrow, lean-to aisles. In the former the aisles are carried along the choir as far as the commencement of the apse, while in the latter they are limited to the junction of the nave and choir. The Dominican Church has its octagonal bell turret against the southern clerestory, that of the Franciscans being on the opposite side, and somewhat more highly enriched. The doorway opening from the street into the aisle of either Church is carried up very high, the superimposed space between the head of the arch and the lintel of the doorway being filled in with perpendicularising tracery in lieu of sculpture. Both these vast structures are about 220 feet long. That of the Dominicans is in 15 rather narrow bays; the columns supporting the arches are tall octagons, and to each arch corresponds one clerestory window and one aisle window. In the Franciscan Church the arches are of wider span, two windows in aisle and clerestory lighting each bay.

(*To be continued.*)

* Erfurt is not, nor was it ever a Bishop's see, being included in the Diocese of Paderborn. The term Dom, as applied to its grandly situated head Church, is therefore somewhat erroneous—a Dom being, strictly speaking, a Cathedral Church with a large body of clergy attached to it. But the word seems to be used in Germany to denote the chief Church of a town.

IMPORTANT WORKS ON THE THAMES.

SEVERAL important works have been undertaken by the Thames Conservators which will materially assist the navigation of the river, and tend to the prevention of floods in the valley of the Thames. The first of the new works is at Teddington, where a relief channel is to be constructed to permit the water more freely to escape at the weir in time of flood. This channel will be 80 ft. wide, and it will come into practical operation shortly after the river above rises higher than the head-water level, which has to be maintained for purposes of navigation. It will add materially to the water-carrying capacity of the river at this point, and the work of construction, which is to be carried out forthwith by the Conservancy staff, under the superintendence of Mr. C. J. More, the engineer, will be completed early in 1897. Penton Hook, about a mile from Staines, is the next place where the flow is arrested by the eccentric course followed by the river, and there the obstruction caused by a sharp bend is so marked that during floods a difference of between two and three feet is noticeable in the levels above and below the lock. A valuable improvement has here been rendered possible by the powers of the Staines Reservoirs Act of last session, under which the sum of £5,000 has, within three months of the passing of that Act, to be paid to the Conservators by three of the London water companies towards the costs of works necessitated by their proposals to take a larger, but limited, supply of water from the river above Staines. Under the same Act a further contribution of a like amount has to be paid annually when any part of the additional supply thus sanctioned is taken. The money so obtained by the Conservators is to be expended on the

CONSTRUCTION OF A WEIR,

with the necessary tumbling-bay over the neck of land now forming the "Hook." This new weir will be so designed as to create a much larger sectional area for the discharge of flood water, and thus one of the most serious hindrances to the free passage of floods will be removed. Between Staines and Oxford extensive dredging work has simultaneously been undertaken, and very shortly the Conservators will enter upon further improvements which have been suggested at Bray, Caversham, and other places—all likely to have the same effect of improving the flow of the river, and thus giving flood relief. But when all these changes have been carried out, there will still remain many obstacles to the free flow of flood-water with which at present the Thames Conservancy has no power to cope. Quite apart from the impediment offered by the restricted waterways existing at many of the bridges, there are no fewer than eight bridges between Reading and Staines where the flood openings which were originally provided are now rendered

ABSOLUTELY USELESS

for that purpose, either by reason that they have been blocked up, and used for various private commercial purposes, or in consequence of the ground near them having been raised to such an extent as to prevent flood water reaching the openings. Again, a great deal of the flooding in the valley of the Thames is due to the neglect of the side streams and other drainage channels, which have been allowed to silt up and become obstructed by all sorts of impediments to the free flow of the water. The Conservators are exerting themselves to induce the various local authorities immediately concerned to use their influence to secure the removal, or at any rate the lessening, of these several obstructions. Eel-bucks constitute another impediment to the rapid escape of flood water, and over these the Conservancy has no control whatever. They represent private fishery rights, and only two years ago Parliament emphatically refused to grant any powers authorizing their compulsory removal. During the present autumn beneficial results have attended additional precautions which have been taken with the intention of providing for sudden rises of the river after heavy rainfall. The success of these new safeguards has led the Conservators to consider favourably the suggestion that telephonic or telegraphic communication should be established, so as to enable weir tackle to be drawn when there is reason to apprehend a sudden increase in the volume of water passing through a particular reach; and it is proposed that such communication shall be provided, as an experiment, between Cookham and the Bell Weir at Staines—a section of the river which in times of flood has always been most seriously affected.



NORTH SIDE OF ST. JOHN'S CHURCH, OSNABRÜCK. FROM A SKETCH BY W. A. HANSON.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
December 16th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

THE Picture Gallery for British Art that is being built near the Thames, a little beyond the Houses of Parliament, will, it is expected, be ready for opening about next June. This is good news and should be appreciated. The National Gallery Trustees, whose rooms will, it is to be hoped, be freed from their congested state by the removal of the pictures of the British School. It is hoped that Mr. Tate's new gallery will act the part of an English Luxemburg, in which the candidates for a place among the immortals shall endure a period of purgation. We have only one or two Gainsborough's, Constable's, or Millaises in a generation, and it takes time to determine finally who are deserving of these places of eminence.

LORD ROSEBERY'S friendly disputation with Sir Walter Besant, as to the beauty of London, does not leave him with the best of the argument. It was a surprise that Sir Walter, who knows his East End a great deal better than Lord Rosebery knows even the West End, should have taken the side of the beautiful, while Lord Rosebery, brought up in purple surroundings, is disposed to sneer even at the beauty of London. There is no doubt that London has considerably improved within recent years, and, in some respects, it is more Parisian than Paris. There is probably no street in Paris to equal the irregular beauty of Piccadilly and Regent Street. Improvements in the parks, in the roadways, and in the outer decoration of houses and shops have wrought a great change; but the lack of sunshine must always mar the beauty of London as compared with rival cities.

PLANS for the internal structural alterations at the Dublin Custom House have recently received the sanction of the Treasury, and, no doubt, the extensive work that the scheme will involve will be commenced in a short time. Nothing seems yet to be known as to whether the work will be contracted for or be carried out by the Board of Works staff. The expenditure will be about £4,000 pounds. The object of the alterations is to convert the entire of the interior of the northern section of the building, facing Gardiner Street and Store Street, into one long room to be occupied by the staff, and the roof to be propped with iron pillars. Other portions of the building will, we understand, be taken for the purposes of a board room and apartments for the Board of Works.

A SPECIAL meeting of the Commission of Sewers was recently held at the Guildhall. The meeting was convened for the purpose of discussing the following resolution, notice of which was given by Mr. Deputy Johnson at the last meeting: "That the Finance and Improvement Committee be empowered to proceed with the building of the new offices on amended plans, by other contractors, if, in their opinion, it be found necessary or desirable." The debate was proceed with *in camera*, and the discussion lasted over an hour. After hearing an official explanation of the position of affairs, and inspecting the modified plans of the new offices, Mr. Deputy Johnson, with the permission of the court, withdrew his resolution.

THE modern system of building large blocks of buildings with lift shafts leading from the basement to the top floor, convenient as it may be, possesses also certain elements of danger. In the event of a fire occurring below, a tremendous draught is at once created, and if there is sufficient woodwork no mortal power can stop the upward rush of the flames. In cases in which the fittings are all fireproof the danger is, of course, diminished; but, at the same time, the shaft would act as a chimney and increase the power of the flames below. It was entirely due to such a shaft that a fire that originated in the basement of a hotel in London Wall recently, burnt out the top floor without doing much damnge to the rest of the building. A fireproof shutter, capable of being readily closed across the shaft, would, to a large extent, obviate the risk of the shaft being temporarily converted into a chimney.

FOR the ensuing year the Council of the Royal Academy has just been constituted. Five of the old members and five appointed last week make the ten over whom Sir Edward Poynter presides. The old five are four painters and a sculptor—Mr. Tadema, Mr. Stone, Mr. Fildes, Mr. Waterhouse, and Mr. Onslow Ford. The new five are Mr. Thornycroft, Mr. Pearson, Mr. Armistead, with Mr. Boughton and Mr. Richmond. The latter two, who combine with their duties on the Council the unenviable function of hangers, have their seats at the board in virtue of their recent election to full Academic honours. It is noticeable that in this list of ten R.A.'s there is not one landscape painter. There is an Architect, and there are three sculptors—which is a liberal allowance for a branch of Art in which our English Academy does not shine. Of course, this combination is quite accidental—the Academicians take their places on the Council by rotation, not by election.

A PARAGRAPH recently appeared in a contemporary complaining of the constant breaking up of the streets of the metropolis, and suggesting the construction of subways for the accommodation of gas and water pipes as was now done "in some parts of the Continent." This suggestion is by no means new. The evil complained of is as great now as it was forty years ago, though the plan has been adopted in some of the thoroughfares since made. It would be an immense convenience if subways could be constructed under all our main thoroughfares, but the expense would be immense also. The minimum cost has been officially estimated at £46,000 per mile, which would make a very sensible addition to the rates—more than would be agreeable, especially as there are a number of costly improvements to be commenced as soon as the necessary powers have been obtained from Parliament.

THE proposal to purchase a site on the Thames Embankment for new offices for the Metropolitan Asylums Board has been refused by the Local Government Board. So much was to be expected from the recent communications on the subject. The reason hitherto stated was the costly nature of the entire scheme; it now appears, however, that the question has been raised whether the Managers are empowered by law to borrow money for the purpose of erecting offices for the transaction of their general business, and the Board say they are now advised that the Managers are not so authorised. This puts an end not only to the particular scheme under consideration, but to any modification of it. The assertion comes as an unpleasant surprise.

CONSIDERABLE success has attended the installation of a meteorological observatory on the summit of Mont Blanc and this has stimulated Italian men of science to crown Monte Rosa with a similar edifice. It is intended to utilise the hut on the Gniffetti Peak, built three years ago as a shelter for climbers. Situated at a height of about 14,000 ft. above sea level, it will, as regards elevation, rank fourth among the twenty-seven mountain observatories of the world, being surpassed in altitude only by those of Arequipa, Mont Blanc, and Pike's Peak.

IN Crutched Friars all the houses are severely modern, save one. What its exact age may be no one knows, but it is probably Tudor, and if so it was standing when the house of the Crutched or Crossed Friars existed, and gave visible reason for the name which the street still bears. Again, in that case, it witnessed the down-pulling of the friars' house and Church, and the building in their stead of the mansion which Sir Thomas Wyall erected for himself on receiving the grant of the friary from Henry VIII. Lastly, it was a silent spectator of the destruction of the mansion-house and of the building on that historic site of the East and West India Dock Company's great pile of warehouses. Mr. Alfred Shepherd is the present tenant of this relic of bygone London. It has been in the same family for over one hundred years. In the little room behind the shop is a window-pane upon which is scratched the date 1805, and another pane marked "1800" has been accidentally destroyed. Outside, the quaint plaster-covered upper stories projecting over the old-world shop on the ground floor, and the bottle-glass in the top windows, endear it, for a picturesque old place, to the heart of every antiquary.

IT is proposed by the London County Council to form a Special Committee to undertake the task of preparing a register of buildings of historic and Architectural interest. Had such a register been in existence, many of the historic buildings that have been destroyed during the past ten years would undoubtedly be still with us as links binding the past with the present. Happily, however, there is still a wide range of work before the committee, and much good will undoubtedly result from their labours as regards the preservation of buildings that otherwise might fall in what is termed the march of progress.

AT the forty-ninth annual dinner of the Builders' Benevolent Institution at Carpenters' Hall, London Wall, the chairman said that the charity was founded to provide a small allowance for builders and their widows, who, after the age of sixty years, had need of help, so as to keep them out of the workhouse. Forty-nine years had passed since the institution was established, and during that time 270 cases had been relieved. The allowance was not large, being 15*s.* a week to each male, and 10*s.* to each female pensioner. A sum of £2,000 per annum was required to keep the institution going; of that amount under £700 came by way of subscriptions, the remainder being raised in connexion with the annual gathering, with a small income from investments. During the evening donations were announced amounting to £929.

THE Hull electric light question seems little nearer a solution: for the second time the committee's recommendations for the extension of the system have been referred back by the Council. Applications for the light come in every day, but they cannot be met owing to the present works being utilised to their fullest extent. The North Eastern Railway Company has asked the cost of 700 sixteen-candle power lamps to light the station hotel.—Mr. Crook, at a recent meeting, said the action of the Council simply indicated that there was no confidence in the committee; and the only dignified course the chairman and committee could take was to send in their resignations.—It was decided that the scheme recommended to the Council was the best from every point of view, and that the committee could not be parties to recommend any scheme which fell short of their previous recommendation.

A SKETCH-MODEL of the equestrian statue which it is proposed should form the central object in the plan adopted by the Council for the laying-out and ornamentation of City Square has been on view at the Leeds Art Gallery. The main features of the general plan—for which the town is indebted to Alderman Harding and Mr. Bakewell, Architect—consist of a raised circular platform, 100 feet in diameter, surrounded by a balustrade of polished granite, and of two triangular spaces on the Post Office side, also surrounded by granite balustrades, and giving access to the underground lavatories, while leaving room for statuary, drinking fountain, or flower beds. Alderman Harding offered at his own expense to provide the equestrian statue which is proposed for the centre of the circular balustrade, and commissioned Mr. Thomas Brock, R.A., to prepare the model. It was considered essential that the subject should permit of decorative treatment, and, in the absence of any heroic figure connected with the history of Leeds, the subject selected is a national hero, Edward the Black Prince. Alfred Drury, of London, the sculptor of the "Circe" and St. Agnes," now in the Queen's Room of the Art Gallery, and whose bronze bust, "Griselda," was exhibited at the last

exhibition of the Royal Academy, was commissioned to prepare models for the life-size bronze figure lamps which are to be placed on the pedestals of the circular balustrade, two of them flanking each of the entrances to the raised platform. Mr. Drury has likewise prepared models of two figures, emblematical of "Dawn" and "Twilight," and these, too, are on view at the Art Gallery. It is proposed to repeat this pair of figures at each of the four entrances, so that they will be eight in number. They will carry electric lamps, and the present gas lamps around the causeway will be dispensed with. The execution of these works, if approved by the Corporation, will probably occupy nearly two years, but it is anticipated that the Architectural work to be carried out by the Corporation will be completed in about nine months.

AFTER having been exhibited in several provincial towns, the National Competition Works of Schools of Art and Art Classes have now been re-arranged at South Kensington, in the same place in which they were exhibited last August. The works to which gold and silver medals were awarded during the previous eleven years are shown in an adjacent room. A collection of drawings from elementary schools is also exhibited, each school being represented by the whole number of drawings executed at this examination. In selecting the schools consideration has been given to the desirability of showing the drawings from small and only partially equipped schools, as well as from those which are large and well equipped. Besides the above is shown a representative series of the exercises worked by candidates sitting at the annual local Art examinations in 1896. These, which are done within strict limits of time, are, perhaps, even more full of meaning and interest than the more finished drawings and models executed during the school year which are entered for the national competition. With each set of worked papers the paper of questions is given, as well as the number of candidates who sat for examination and the awards. The premium works of this year's national competition come from 104 towns in all parts of the kingdom. An opportunity is thus afforded for studying the outcome of the grants for Art teaching made by the Department in a more complete manner than has ever occurred before. The exhibition will remain on view until the 10th January, 1897, and is open free, daily, from 10 to 4 in the galleries to the south of Imperial Institute Road.

THE new street indicators, which have recently been put up in several thoroughfares in London, seem to be useful contrivances. Their iron frames are so constructed as to contain a chart of the names and addresses, arranged alphabetically and numerically, of all the shops and business premises in each street, with the street sub-sections clearly shown. They thus constitute a kind of open-air directory, which should be very serviceable to the public. Particulars are also given of the nearest fire station, police station, post office, hospital, &c. We understand that some of these indicators will be put up in provincial towns early next year.

IT is now claimed that the Caledonian early morning train from Carlisle to Aberdeen is the fastest train in the world. An expert in speed who made the trip says that for twenty miles the average was 72·8 miles an hour, and for two miles 81·6. The whole performance is described as the ordinary work now on the Caledonian, and far in excess of English times. The engine, in addition to large cylinders, has the largest boiler of any locomotive in this country. In ten years the Caledonian have reduced the time from Carlisle to Aberdeen from seven hours twenty-two minutes to four hours thirty-one minutes.

THE death is announced of the Spanish painter, Señor Luis Falero, at the age of forty-five. Señor Falero was a native of Toledo. He resided for some time in Paris, but came to London several years ago and took up his permanent abode here. Among his numerous works may be mentioned "Double Stars," "Le Cauchemar," "Marriage of a Comet," "The Dream of Faust," and "Unto a Better World." Many of his pictures, most of which have been reproduced, are in the United States, and especially in New York. He was very learned and particularly well versed in astronomy. Flammarion's Popular Works on Astronomy are adorned by Señor Falero's illustrations. He made a considerable reputation by allegorical pictures of the stars. He exhibited frequently at the Royal Academy.



ANCIENT BRASS FONT IN MÜNSTER CATHEDRAL. FROM A DRAWING BY W. A. HANSON.

OF the series of fortnightly lectures on Art subjects the fourth was delivered in the Glasgow Corporation Art Galleries by Mr. James L. Caw, Curator of the Scottish National Portrait Gallery, Edinburgh. Mr. Caw began by pointing out that a true understanding of the aims and limitations of pictorial Art was essential to an intelligent appreciation of pictures. All the Arts drew inspiration from life and Nature, and all strove to give expression to the emotion awakened in the Artist, but the concrete form of each Art was determined by the limitations of the medium of expression. The Art of painting was primarily related to the eye, and all it could express must be done by means of form, colour, and light and shade. Technique did not exist for itself, but without it ideas could not be expressed. A subject could be approached in several ways, of which the academic, the realistic, and the personal were chief, but the last was alone of importance in Art. But in whichever way a subject was looked at, it must be suited to pictorial treatment, and what that involved in portraiture, the subject-picture, and landscape was dealt with. The great problem in portrait painting was to combine likeness and decorative beauty. Abstraction was essential, for without it portraiture was vulgar and commonplace; but, on the other hand, an excess of abstraction was a weakness. The use and history of the subject-picture was next traced and illustrated, and it was pointed out how contemporary circumstances influenced Art. There was a tendency to confuse the functions of literature, or of the theatre, with those of painting. But one touched a limitation in any Art whenever other means would express the idea more vividly and beautifully. Vital Art was the result of personal contact with Nature and life. The mental process through which any subject passed in taking pictorial form was indicated, and the lecturer concluded by briefly summarising the principal conditions to which pictorial Art should conform.

A SPECIAL sub-committee was recently appointed by the Road and Improvement Committee of the Birkenhead Town Council to approach Mr. Vyner, the owner of the Halfpenny Bridge at Poulton, with a view to negotiating the purchase of the bridge and its freedom from toll. At the last meeting of the committee, the deputation, who had seen Mr. Vyner, reported that there were two alternative schemes:—(1) To purchase the free om of the bridge and construct certain improvements, which would practically take the form of a new high-level bridge; (2) or to build an entirely new bridge at another point. For the former scheme the sum of £50,000 was named, of which £30,000 or £35,000 would go to Mr. Vyner as purchase money, and the remainder towards the cost of the alterations and improvements. The other scheme would involve an expenditure of about £60,000, according to the plan estimates of the borough surveyor. After considering the schemes, the committee expressed the opinion that Mr. Vyner's terms were far too high, and authorised the sub-committee to spend £30,000 as an inclusive sum. Failing acceptance of the reduced offer by Mr. Vyner, there is a feeling that a new bridge should be built, as it could be done at a point more convenient to both Birkenhead and the Wallasey district, between which improved communications are sought. It may be added that Mr. Vyner recently doubled the tolls on the bridge, and foot-passengers have now to pay a penny, instead of a halfpenny as formerly.

AT a recent meeting of the London County Council, attention was called to a curious clerical blunder on the part of a contractor to whom a few weeks ago the contract for certain work at the Heath Asylum was given. One item was extended at a farthing instead of one shilling and fourpence, the result being a loss to the contractor of close upon £1,000. The Council, on the recommendation of the committee, agreed to allow the contract to be amended.

IT has been decided by the committee of the Shropshire Horticultural Society to entrust the commission to execute the statue of Charles Darwin, to be erected at Shrewsbury, to Mr. Horace Montford, a native of the city. The statue will be a seated figure in bronze, 6 ft. 6 in. high, mounted on a granite

pedestal 4 ft. 4 in. in height, with steps 1 ft. 2 in., making in all a monument 12 ft. high, at a cost of £1,000. It is proposed to erect the statute in a prominent position in front of the Public Free Library, formerly the free school building where Darwin received a portion of his education. The Shropshire Horticultural Society has undertaken to defray the entire cost of the statue.

The late Lord Saville's large estates in Notts and Derbyshire (which were worth over £40,000 a year at one time) have probably suffered more severely than any other property in the country from the succession duties. The estates have changed hands three times in fifteen years, through the deaths of Mr. Henry Savile, Mr. Augustus Savile, and Lord Savile, and on each occasion the heaviest rate of duty has been payable, owing to the fact that they were illegitimate, and not legally related to their successors. Besides this, Mr. Henry Saville had the same duties to pay on the death of his putative father, the eighth Earl of Scarborough. On the present occasion the duties will amount to £208,000. Rufford is a grand old house, and in admirable order, with a splendidly timbered park of 500 acres.

An order has been published in the Gazette directing the removal of all the human remains lying beneath the floor of St. Mildred, Bread Street, London, and their reburial in Ilford Cemetery. The present Church of St. Mildred was rebuilt by Wren, in the year 1683, on the site of the original Church destroyed in the great fire. It measures but 62 ft. in length by 36 ft. in breadth, and is crowned by a richly-decorated cupola. The woodwork in the Church is exceedingly handsome, especially the oak "altar-piece" and the massive oak pulpit with its magnificent sounding board. The carvings on the "altar-piece" and pulpit are attributed to Grinling Gibbons. The old pews still remain, including the spacious corporation pew, which is adorned at the ends with figures of the lion and unicorn, and contains a fine sword-rest. These pews will have to be removed *pro tem.*, but it is to be hoped that care will be taken to replace the pews and all other pieces of woodwork in their original positions. In the vestry-room, which is situated to the south-east of the Church, there is a large antique chest containing the parish registers from the year 1559.

Hall Barn, Beaconsfield, the country seat at which Sir Edward Lawson has been entertaining the Prince of Wales, contains many treasures connected with Edmund Burke. One of the features outside the mansion is the long avenue of beeches by which it is approached. At the extreme end of the avenue stands a fine obelisk, erected by the poet Waller, to commemorate the grove being finished. About the grounds and gardens are quaint temples and obelisks and sundials. In the adjoining village of Beaconsfield is a fine Church, in a vault of which rests Edmund Burke, though there is no monument, but only a modern brass to his memory. Waller, however, has a handsome tomb in the churchyard to mark his grave.

It is often matter of much conjecture as to how the vast estates of the ducal owners in London are conducted. Many believe that the sole business is in the hands of the agent, and that with the Architect he does pretty much as he likes. This, however, is not the case. The Duke of Westminster, for instance, manages his estate in the most methodical and business-like manner. No alteration is made on the estate without his personal consent, and no innovation projected without full and detailed discussion. Periodical meetings, presided over by the Duke himself, are held, at which the solicitor, the agent, the Architect, and the surveyor attend. The minutes are taken as at an ordinary board meeting, and resolutions and decisions arrived at only after the most careful inquiry. The Duke of Bedford, we believe, adopts similar methods.

Professor J. O. Arnold, of the Sheffield Technical School, in the third of his series of Brightside Extension Lectures on "The Properties of Steel," devoted himself to annealing, hardening, and tempering. He said that the mechanical tests of hard, annealed steels showed that as far as tenacity and ductility were concerned, the process of annealing actually injured the steel, but for the purpose of file-cutting the steel was much improved. In unannealed steels, the carbide of iron being finely diffused, presented great resistance to the chisel, but in annealed steels the crystallised carbide was in particles well divided by spaces of soft iron, and amongst these the chisel readily penetrated. To explain in a popular lecture the actions of hardening and tempering was a very difficult task, because it had been necessary to employ very intricate physical apparatus, the object of which was to accurately measure that which seemed a ridiculous paradox, namely, how much hotter a piece of steel became on cooling and how much cooler it became on heating. In the next and final lecture the important subject of steel castings will be dealt with.

At Felsham Church, the nave has recently been re-roofed to its original height, replacing an old queen-post design of the last century, which had become much decayed. The nave belongs to the decorated period of Architecture, with a beautiful porch of the Perpendicular period on the north side, and the original pitch of the roof could be clearly discerned on the tower by the line of the old string-course. The inside dimensions of the nave are 47 feet long and 26 feet broad. The new roof is constructed of English oak, consisting of eight hammerbeam principals, with curved ribs and moulded wall pieces, and massive rafters, purlins, and ridge, all framed and pinned with oak pins. Externally it is covered with copper, to reduce weight, replacing a heavy lead roof. The walls being slightly out of upright and somewhat weakened by damp at the base, iron tie-rods were inserted to each principal. The parapets have been rebuilt in panelled flint work, and the east wall over the chancel arch heightened and finished, with a cross to match the one on the chancel. In addition to this, two ungainly brick buttresses on the south side have been rebuilt in flint and freestone, to match others on the same side. The porch has been re-roofed in copper. The work has been carried out by Mr. Fred. Bennett, of Ipswich; Messrs. Ewart, of King's Cross, have done the copper roof, and the whole has been executed under the superintendence of Mr. John S. Corder, Architect, Ipswich.

A beautiful west nave window has just been put into St. Nicholas' Church, Whiston, by Messrs. Morris & Co., of Merton Abbey, Surrey. The subject is "Paradise," and the rose window at the uppermost, and most probably the most important and striking, part of the window, is the figure of our Lord in glory, enthroned among the angels, whilst below, in the long lancet lights, is a verdant landscape with paths around and among the flowers and foliage. Ascending and descending these paths are angels of praise, "Paradise" angels, each robed in silvery white, and with an instrument of music. The effect of these angels, with their ruby to pink wings, upon the varied greens of the landscape is very satisfactory, and the whole effect is greatly enhanced by the bits of sky which appear at the horizon, as it were, of the landscape. The varied blue of this sky is produced by hundreds of little bits of changing tone. The window was designed by Sir Edward Burne-Jones.

At Dieppe last week a serious landslip took place, three large masses of cliff sliding in succession, carrying with them the Châlet Bamberger. There was fortunately no loss of life or injury to person. The damage done is estimated at 120,000 francs, including the furniture of the châlet. The disaster is attributed to water percolating through the clay soil. Large fissures are to be seen in other parts of the cliffs, and further landslips are feared. The châlet was situated nearly two hundred feet from the edge of the cliff. Great excitement was occasioned by the event in Dieppe, the crash of the falling earth being heard over the town.

At the last meeting of the Bradford Town Council a member moved an alteration of the resolution passed on January 12th, 1892, so as to require each person submitting a tender for a Corporation contract to give an assurance that he has paid for three months preceding the tender not less than the minimum standard rate of wages in each branch of his trade, together with an undertaking that he will continue to pay, during the contract, to his workmen the said rate of wages; and instructing the Town Clerk to insert in future contracts a penalty clause providing that in the event of a contractor giving a false assurance, or committing any breach of his undertaking, he shall forfeit and pay as damages to the Corporation, or the Corporation may deduct from any sum due to him under this contract, a sum equal to 5 per cent. on the value of the work completed, and that the Corporation, if they think fit, may also cancel their agreement with the contractor. Past experience, he said, had proved the inefficacy of the old resolution, which was due to the absence of a penalty clause. It might be urged the penalty clause was not a legal one. But already, in the scavenging contract, such a clause was embodied. The Town Clerk said that there was no general provision in law to prevent such a clause being enforced, but owing to the unreasonable and extraordinary penalties which it was found were inserted in contracts the Courts adopted a policy of granting relief. The resolution submitted spoke of what might be termed "agreed damages," which might be recoverable. He could not, however, shut his eyes to the fact that a case might arise in which a Court might grant relief. If the Council were so disposed, there was nothing to prevent them from taking the maximum of power and enforcing it afterwards as they might be disposed.

There is just now, at the Palaise de l'Industrie, in Paris, a model, in clay, of a projected statue of Carême, the renowned cook. In lieu of the soldier's gun-carriage or the sailor's anchor and cable, he has at his side a roaster with a couple of fowls on the spit. It is a new departure, but in France, where statues have sprung up like mushrooms, to perpetuate the memory of persons whose celebrity is in many instances strictly parochial, there is no reason why a great cook should not have one. And Carême was devoted to his art, and upheld its dignity.

A company is to be formed for utilising the Liverpool and Manchester highways for motor traffic from the docks to the Manchester warehouses, based on the calculation that goods will be carried at one-third of the railway rates. Enthusiasts who believe in the motor car may hail this as the beginning of the end; but a glance at the railway maps of England will suffice to convince any one that, even if the locomotive were abolished, the railroads must for ever remain the chief arteries of long-distance traffic, probably with light motor feeder lines on every high road.

The Thames (Western) Improvement Committee, the organisation which has been formed to promote the agitation for the construction of a new lock upon the River Thames below Richmond, has decided to obtain from an expert a comprehensive report upon the condition of the river in the lower reaches, and the best position in which to place the lock. This decision arose out of a conference of representatives of local authorities. The formulation of the report will necessitate a survey of the river, and will cost about £500.

It is proposed by the Swiss Government to the Federal Assembly to ratifiy the Convention with Italy for the piercing of the Simplon tunnel. As the difficulties which have hitherto frustrated this great engineering project have always come from the Italian side, this presumably means that the Simplon route to Rome will figure in European time tables at no distant date. It need not disfigure the landscape to any appreciable extent, but its construction will probably be the immediate cause of an extension upon which the lovers of scenery will look with a less favourable eye. This extension, of which the Swiss railway kings have long been talking, is nothing less than a tunnel under the Gemmi. By this means Thun will be directly connected with the Rhone Valley at a spot not many miles from the foot of the Simplon, and Swiss and German tourists will have a new and convenient way of getting to the Riviera. That the Jura-Simplon dividends will thereby be swelled is hardly doubtful, but the narrow and beautiful Kandersteg Valley will as surely be spoiled.

Events in connection with the demolition of property in Aberdeen to make way for the extension of the south wing of Marischal College have forced upon the notice of the authorities the insufficiency of housing accomodation for the

class of people who have been displaced. The work of pulling down the tenements, ten in number—accommodating about 40 families, or in all about 100 persons—had not proceeded far when the tenants in the house from which the slates were first removed made a forcible protest against the demolition of their dwelling. The workmen refused to desist, and told the occupants that they had been warned to remove at Whitsunday. The tenants denied this, and declared that they could not find suitable accommodation elsewhere; but their protestations were unheeded by the workmen, who continued the operation of dismantling the house. The work was discontinued by order of the University authorities, and in the meantime the tenants were advised to look out for other quarters. It seems that they paid no rent after the expiry of their twelve months' occupancy, and that they were simply allowed to remain in the house on sufferance. Several suggestions have been made with a view of getting over the difficulty meantime, but they are only temporary measures, and the question of housing the working classes will have to be dealt with very soon by the Aberdeen authorities.

IN distributing the prizes at the Sheffield Technical School, last week, the Duke of Norfolk and the other speakers had something more than the current platitudes to utter on the subject of technical education. It was pointed out that in Berlin the Germans have spent over £400,000 upon technical colleges, and have over 3,000 students in training. It was stated recently at a public meeting in the Staffordshire iron district that the Sheffield School had done more valuable work than all the colleges put together with regard to the iron and steel industries. The attendances at the school show that full advantage is being taken of several of the departments. The accommodation in the metallurgical department is taxed to the utmost. Many attending this department held valuable positions in local works, and some had attended the school five or six years. A sum of £2,000 is now being spent in extending the microscopic laboratories. By the aid of the microscope much had been done in Sheffield to extend the knowledge of steel and iron.

FOR four hundred years it has been known that gold could be obtained in Crawford Moor, in which Leadhills and Wanlockhead, the two highest villages in Scotland, and the site of the lead mining industry, are situated. The gold for more than three hundred years has not been got in paying quantities, and has only been procured for special purposes, from beds of streams and alluvial deposits. According to an old record and to tradition, nearly four hundred years ago a stamping-machine was used to crush quartz containing gold, and it is known that mines were sunk. The fact that detached pieces of quartz with gold grains were not infrequently found strengthened the belief that the precious metal existed in the rock. That belief has now been verified by the discovery of veins of gold in the quartz rock. Mr. Paull, the manager of the mines, states that two veins of gold-bearing quartz have been discovered. The metal has not as yet been found in sufficient quantity to pay for working, but it is hoped that a paying lode may ere long be found.

AMERICANS are at last getting uneasy about their tall buildings. The highest "sky-scraper" in the States was, until recently, about thirty stories; but a writer in the North American Review looked forward with curious complacency to a day when buildings of fifty and even sixty stories would be the rule. It is, strangely enough, the doings of an English syndicate which have brought about the New York crusade against these monstrosities. The people in question propose to erect a fifty-nine-story office, at a cost of seven million pounds, in the heart of New York City, and the authorities have announced that in consequence of this they will present a bill next session limiting the height of new buildings to six stories. The Press is on the side of the syndicate, which is not surprising, since most of the New York newspapers belong to large capitalists, wishful of becoming millionaires, and these huge buildings pay enormous dividends. The common toilers, who, for health's sake, need as much light and air as they can get, are not being considered at all. But there is not the slightest doubt that a city of huge buildings would be a city of a largely increased death-rate among the poorer inhabitants. To a certain extent, also, the more fortunate people having houses in the suburbs would be balefully affected. The experience of ancient Rome would, we believe, amply corroborate this. High buildings are not a modern idea. Under the early Roman Empire they were in great favour, but, gradually, experience and some stray glimmerings of sanitary science led to their decrease.

AT a meeting of the Improvement Committee of the Birmingham City Council, held last week, the principal question discussed was the proposed erection of workmen's dwellings in Milk Street. The idea of the committee is to provide buildings on the dual system, but this scheme is viewed with disfavour by the members of the Birmingham Trades Council, on behalf of which body Councillor Stevens and Messrs. S. G. Middleton and A. Keegan waited upon the committee as a deputation. Their chief objections are that the system is altogether unsuitable; that the area is too overcrowded for such an improvement; that there would not be sufficient air space to be healthy; that most of the rooms at the back of the buildings would be permanently dark; that the water-closets and other offices would be too close to the bedroom windows, and would prevent the free flow of air absolutely necessary for health; that there would be no provision of a playground for children, or for storing food, which was a very important matter, especially in the summer time; that the provision of one small scullery would be wholly inadequate for two families; that no provision was proposed for the dwellers in the upper houses to dry clothes; that the bedrooms would be inadequate for a man with a family, if only of two children of different sexes, to conduct his household decently; and that the houses proposed are wholly inadequate for the isolation of a sick person. The committee decided to submit the scheme in its present form to the City Council.

AT the last meeting of the Athy Town Commissioners a letter from the Chief Secretary's office was read in reference to a request that he would receive a deputation regarding the proposed Barrow drainage. The letter said:—"The evidence in the matter of the proposed drainage has been already carefully looked into by the Irish Government, with expert aid, and they are satisfied that the cost of the work would be largely in excess of the estimate formed by the Allport Commissioners. The Irish Government have been, accordingly, compelled to come to the conclusion that even if the Treasury were willing to ask Parliament to provide the large sum necessary it could be applied to more useful purposes in Ireland. In these circumstances it is not considered that any advantage could be gained by troubling the proposed deputation to come to Dublin."

MUCH indignation has been caused among those interested in the preservation of existing memorials of a past age by the recent discovery of Exeter antiquarians that a number of the interesting Druidical remains on and around Dartmoor have been destroyed, notably on what was known as the Stone Avenue at Bel Tor Corner on Sherberton Common. Investigation being made, it was found that the demolition of this relic, as well as the partial destruction of some of the "hut-circles" which abound on Dartmoor, was the work of contractors of the Newton Rural District Council, who had smashed the stones into fragments for the purpose of repairing the surface of the roads. It was subsequently ascertained that "hut-circles" and "menhirs" in other places had also completely disappeared, the loss of these monuments of early British life being, of course, irreparable. The matter was taken up by various societies and representations were made to the Newton Council, with the result that the chairman of that body has now intimated to one of the correspondents that the surveyor to the Council has been instructed to see that nothing of the kind shall be again allowed to occur.

THE ULTIMATE PURIFICATION OF SEWAGE.*

BY GEORGE THUDICHUM, F.C.S.

A WIDESPREAD interest in the question of the ultimate purification of sewage by means of filtration, conducted on biological lines, has recently been aroused by the publication of the results of the experiments carried out under the auspices of the Main Drainage Committee of the London County Council, at the Barking outfall, during the years 1892-3-4-5 6. Since that publication so many enquiries have been received respecting the experiments from local authorities, engineers and others concerned in sewage disposal, that it may not be inopportune to bring before this Society some of the more important features of the new method. At the same time it will be of interest to institute a comparison between the two principal means of biological purification, viz.:—artificial filtration (bacteriolysis) and irrigation. One principal result of twelve years' research by the Metropolitan Board of Works and the London County Council is the complete demonstration of the fact, which was foretold by Mr. Dibdin and advocated by Dr. Dupré, that all processes applied for the purification of sewage must be subordinated to the requirements of the micro-organisms, by which alone that purification can be completed. This was already shown very early in the inquiry, when it was proved that sterilizing agents, such as chloride of lime, produced an ultimate, effect the opposite of that which was intended. The organisms in the sewage were destroyed and the offensive odour largely removed; but as soon as the diluent action of the river water was sufficient to nullify the antiseptic action, the putrefactive organisms, introduced from the river, multiplied enormously, and the whole mass of sewage underwent putrescent fermentation, bringing about the condition of the Thames in 1884, and again in 1887, which aroused such an expression of public feeling at the time. When, however, an agent, such as manganate of soda, in moderate quantities, was employed, it was found that the oxidation of the sewage could be effected without putrefaction, not directly by the oxygen furnished, but because a certain amount of manganate prevented the increase of the putrefactive organisms, whilst producing the conditions necessary for the well-being of those through whose agency the organic matters were oxidised, without at any time passing through a stage capable of producing a nuisance. Thus early it was clearly recognised that sterilization was a mistake, and that efforts should rather be made towards fostering one class of organisms by whose aid the work was finally accomplished. In the year 1889 the author made a number of experiments with a view to ascertaining if the oxidation could not be accelerated by supplying the sewage with the necessary organisms. These experiments failed, since a free supply of oxygen, intermittent with the food, is necessary for the well-being of the organisms, and this could not be arranged under the conditions then obtaining. Putrefaction, accompanied by the usual offensive odour, could indeed be hastened very considerably; but oxidation without putrefaction was not effected. Further proof of the absolute necessity for the presence of micro-organisms was obtained as a result of experiments upon the effects produced by aëration. That the solution of the problems relating to the purification of sewage effluent by filtration would be of the utmost importance, not to London alone, but to the country and the world at large, is seen at once on the most cursory view being taken of the position of the sewage disposal question. The impossibility of effecting the ultimate purification by means of chemical treatment has led to the adoption, all over the country, of sewage farms, as, apart from economic considerations, it was found that the oxidation effected by passage through the soil, even under bad conditions, was greater than that produced by any precipitant that could reasonably be used. The Commissioners appointed to enquire into the distributing and utilization of the sewage of towns, in their third and final report of March, 1865, expressed a unanimous opinion that "the right way to dispose of town sewage is to apply it continuously to land, and that it is only by such application that the pollution of rivers may be avoided."

* A paper read before the Society of Engineers, on December 7th, 1896.

The Rivers Pollution Commissioners, in their report of March, 1866, fully concur in this opinion, stating that all other expedients for the disposal of town sewage are, on one ground or another, objectionable. They state that disinfectants and filtration have been tried in many forms, and they arrive at the remarkable conclusion that "As applied to sewage, disinfectants do not disinfect, and filter-beds do not filter." With the first portion of this statement, regarding disinfectants, the author is not at present concerned; perhaps the real reason for this conclusion may be found in the behaviour already indicated, of antiseptically treated sewage when it becomes diluted. But as regards the second portion, that relating to filters, all the evidence obtained during the Barking outfall experiments, and those carried out by the Massachusetts State Board of Health, shows that sewage can be successfully filtered; a contention which is strengthened and supported daily, as others start experiments on the same lines. It is presumably this dictum of the Rivers Commissioners, founded on the knowledge of 30 years ago, that will account for the present attitude of the Inspectors of the Local Government Board, who apparently decline in all cases to recommend the granting to a local authority permission to borrow money for the erection of sewage disposal works, unless the scheme presented include provision for land irrigation. That sewage farms, taken as a whole, have proved highly unsatisfactory, is evidenced by the number of attempts that have been made to find some other solution of the sewage disposal problem. Amongst these, filters of all sorts and materials have been tried. The most important of these experiments were those carried out by the State Board of Health of Massachusetts, at their experimental station at Lawrence. Valuable as the results of these experiments are, they still left unsettled the question of purification on a practical scale. The quantity of sewage that could be treated with continuous success apparently did not exceed 60,000 gallons per acre per day; a quantity so small as to be

QUITE USELESS FOR LARGE TOWNS.

The sewage of the metropolis, for instance, would, at this rate, require about 3,300 acres of filters constantly in work, without making any allowance for storm, breakdown, or even ordinary repairs. It was at this point that the Main Drainage Committee of the London County Council took up the question, with a view to ascertaining whether work on the biological lines already established, could not be so extended as to have a really practical as well as a theoretical value. An account of these experiments is given in the chemist's report, dated the 26th September, 1895, and also in a paper read by the chemist, Mr. Dibdin, before the Society of Chemical Industry, in November of the same year. Under these circumstances it is needless to repeat in detail the information that is already so attainable and so widely spread. The conditions obtaining in an irrigation farm differ entirely from those of the artificial filter. The power of control is wanting. If the land be sufficiently porous and well drained to prevent its becoming water-logged and to permit of the free passage of the effluent during wet seasons, it will not retain the effluent for a sufficient time during dry periods to admit of the work of purification being completed; whilst if it be sufficiently retentive to effect this, it will be useless during heavy rains. The time of contact, instead of being just sufficiently long to cause the oxidation to take place to any required degree, whilst avoiding killing the micro-organisms through want of air, must of necessity vary, and the quality of the filtrate will vary accordingly. The area required for filtration by irrigation is also very large as compared with that needed for artificial bacteriolysis. The Rivers Pollution Commissioners recommend not less than one acre for each 150 of the population; a figure which, if worked out for the metropolis, gives a sewage farm of some 40,000 acres in extent, or over 60 square miles. The final and chief objection to the irrigation method of sewage disposal lies in the fact that the sewage must be delivered on to the land quite irrespective of the requirements of the latter and without regard to seasons and to the condition of crops. The author would again refer to the attitude of the Local Government Board towards local authorities seeking power to borrow money for the purposes of sewage disposal works. Judging from recent cases in which the authorities concerned have been definitely informed that the inclusion in their scheme of land filtration is a *sine quâ non* to the granting of permission, no other attitude is likely to be adopted until the force of opinion amongst experts in sewage treatment actually compels a change. This action of the Local Government Board officials is certainly very extraordinary. That filtration by biological means produces an excellent and controllable result admits of easy proof. At the Barking outfall a million gallons per diem of an inferior effluent are successfully treated, and have been for some time throughout all the changes of season incidental to this climate, including an exceptional frost, such as that of February, 1895. At Wolverhampton, a filter, made of coal but worked on similar lines, deals with sewage effluent at the rate of a million gallons per acre per day, and produces an admirable result. At Sutton, Surrey, the farm is practically neglected, and the work is done by filters of various materials, but worked with due regard to biological conditions, the effluent being in all respects satisfactory. At Aylesbury, where, just recently, permission to borrow money for sewage disposal purposes was refused unless the acquisition of land for irrigation purposes were included in the scheme, the authorities have for some time been carrying out experiments on biological filtration, and with every success. At Exeter the final purification of a portion of the sewage is satisfactorily accomplished by means of a coke-breeze filter. The continuance of the work at Barking during the present year is in a large measure due to the belief in well-informed quarters that an opportunity of inspection and study would probably assist the towns in the valley of the Thames to comply easily with the demands made upon them by the Conservancy; and the chemist to that body has reported favourably upon the results obtained. On the other hand, the fact that local authorities appear to dread the large expenditure that must attend the establishment of an irrigation farm, and to be fully alive to the great probability of failure when established, should surely have some weight with the advisers of the Local Government Board, whose attitude at present is simply one of obstruction to progress in sanitary science.

IT is proposed to carry out considerable extensions at Chelmsford Market at a cost of £550.

THE designs of Mr. Paull, 6, Quality Court, Chancery Lane, have been adopted for a new post office about to be erected at Epsom.

THE Dundee Town Council has made preliminary arrangements with a view to the erection in a public position in the city of a statue to the Queen to mark the 60th year of her Majesty's reign.

AT the general meeting of the Art Workers' Guild, Mr. Lewis F. Day was unaminously elected Master in succession to Mr. E. Anslow Ford, R.A.

THE Corporation of Salford has decided to apply for power in the next session of Parliament to construct and work a grain silo on the Salford docks.

A FULL-LENGTH portrait of Mrs. John Lobb is being painted by Mr. J. Mordecai. The same Artist, it will be remembered, recently painted a portrait of Mr. Lobb.

WE understand that the contributions for the Benson Memorial, not counting what may be given by the members of the Royal Family, are now over £2,000.

ACCORDING to the designs of Mr. Thomas Wilson, Architect, 34, New Bridge Street, the stables, shops, and chambers owned by Mr. H. F. Gidden, in Ormond Yard, Queen's Square, are about to be rebuilt.

IN addition to the ships now being built in England for Japan, one firm holds an order for seventy-two locomotives for that country. The bulk of the rails used in Japanese railways also come from Great Britain, and the demand is increasing.

THE improvement in the Hotel Cecil approach and the Strand thoroughfare will be commenced almost immediately, the various properties and Parliamentary powers having been acquired. The frontage will be set back, the street being widened at this point, and it will consist of shops under the hotel extension above, and a central *porte cochère*, as at the Grand Hotel, Paris, with an "in" and "out" carriage way.

BRICKWORK TESTS.

REPORT ON THE SECOND SERIES OF EXPERIMENTS.

A MEETING of the Royal Institute of British Architects was held on Monday evening, under the presidency of Professor Aitchison. The routine business included an announcement that Mr. John Messop, who had ceased to be a member of the Institute in 1891, had been reinstated as an associate, and that Mr. Frederick J. Kingsley, Mr. Brackenbury Oliphant, and Mr. W. A. Williams, had ceased to be members under the terms of bye-law 20.

Mr. Street was then called upon to read the Science and Standing Committee's report on the second series of brickwork experiments, which, he stated, had been conducted on the same side of the West India Docks as the first series. They were held last June. Owing to the very unsatisfactory manner in which some of the piers experimented upon in December last year had been built, duplicates had been decided upon, and these were the piers first operated upon in June. They were three months old, having been built in March. The other piers—eight in lime-mortar, and eight in cement-mortar, were ten months old, with the exception of the one used in the last experiment, which, on the suggestion of Professor Unwin, was laid in sand and experimented upon in the same way as the others. Then the report went on to mention those who had taken part in the experiments, the principals being Professor Unwin and Messrs. Street, Max-Clarke, Carbutt, and Dicksee, the latter four members of the sub-committee; but, in addition, Mr. Burrows, Mr. Creighton, the foreman of the docks, and Mr. Adie, had also assisted, the latter having satisfactorily made the compression observations by means of a gauge. As had already been stated in the Journal, the committee are preparing for a third series of experiments upon short lengths of walling built with closers, and of a more perfect bond than could be obtained with piers, 18 inches square. The work of cutting closers with brickwork was so difficult that the workmen, when building some of the first lots of piers, committed the sin of inserting closers of soft bricks inside, while the members of the committee were absent. The lengths of wall now waiting the period of crushing have been carefully watched during building, and whatever results might be, there was little fear of bad workmanship. Another, and

FINAL REPORT,

will be presented when the experiments are complete, and the whole of the series will then be dealt with. From the *data* derived from the experiments, they expected to be able to establish reliable rules as to the safe loads for the various kinds of brickwork which they had to build. It was interesting, meantime, to note the great differences in the strength of bricks and of brickwork, the enormous disproportion being due to the quality of the material interwoven with the bricks, as a means of keeping the mass together. The effect upon the different kinds of bricks is variable, some bricks being more sensible to adhesion than others. Again, if the mortar is imperfectly mixed, or the joints of the brickwork imperfectly filled up, the injurious effect on strength was incalculable. It introduced unequal pressures in different parts, and if the work failed in detail, very much of the whole was destroyed. And, therefore, it was an obvious lesson for everyone—too much care could not be exercised in the selection, proportion, and application of mortar. There was one pleasing reflection. If a building was likely to collapse from want of strength it was more likely to do so when the mortar was fresh and green than at a later date. The diagram representing the last experiment—that upon a brickwork pier, built in sand, gave them a good idea of the way in which brickwork would fall, if exposed to fresh or additional loads, after the mortar had become thoroughly disintegrated. Mr. Max Clarke then explained the illustrations of the experimental operations. The piers

VARIED CONSIDERABLY

in sustaining the pressure—roughly from five tons to ninety-five—though a good many had collapsed when a pressure of between twenty and thirty tons had been reached. The experiment having been thus explained, Professor Unwin offered a few supplementary remarks. It occurred to him during the experiments, he said, to try one experi-

ment on the influence of the form of crushing, and the result had convinced him that the resistance of a pier depended very largely upon the form of crushing. One of their great difficulties was to obtain material of a uniform quality so that there were no discrepancies. Ordinary red brick was fairly uniform in quality, and he had carried out a small research on a piece of red rubber brick. But he would not go into that very fully just then; he merely wished to make it clear that the greater the space of brick the more influence the form of crush had upon the structure. A half-a-brick was weaker than a whole brick, and he called attention to the point to emphasize the fact, that, in crushing, the question of form came in just as well as the question of material. The tests were not completed, but the tests in square piers practically were, and although he was not going to give a final judgment, yet there were one or two points to which he might call attention. If they looked at the tests they would see that they furnished two great anomalies. The first one was this:—a few piers which had been built at a later date than others, and built under conditions of very much greater care, often carried more, always as much, as those of the earlier date. The piers of Gault bricks, for instance, built latterly, had sustained a pressure of forty-five tons, whilst the earlier erections gave way beneath eighteen tons. And the same thing applied in the case where the Leicester red brick or the Staffordshire bricks were used. This was an anomaly which required some explanation, for its elucidation would be of some importance. The improved conditions under which one lot of the piers had been erected had been specially pointed out to them. But there was another cause of the discrepancy in results, and that was the materials used in the manufacture of the mortar. He was very much inclined to think that nearly the whole of the difference was due to the varying kinds of sand used in making mortar. There could be no doubt that the quality of the sand was all important, and the inferiority of the sand used in the latter series of experiments accounted largely for the disparity in result. This was the first anomaly; the second was this:—if they took the tests in order, they would find that in far the greater number of cases – and there were eight altogether, four qualities of bricks in lime and four qualities of bricks in cement—three of the piers of the latter date carried more than the piers which had been standing for ten months. This was a very curious anomaly, for which he could not in any way account; the older erections ought certainly to have shown much more strength. They were actually weaker than those of earlier date, when they ought to have been appreciably stronger. He would have been inclined to attribute that fact to frost, but they had had no frost. The speaker went on to refer to the experiment which he had suggested, viz., a pier without mortar. He was glad the committee had carried out his suggestion, for

THE RESULT WAS INSTRUCTIVE.

They had there a pier in which there was no collateral adhesion at all. When the experiment had been carried out, he asked Mr. Street how it had gone, and was told that it did not carry anything at all. He was disappointed, but not so when he learned the actual result, for he thought the pier had behaved very commendably. No sand carried a greater load than the average of the London stocks, which, in lime for 18 weeks or 43 weeks, carried a load not very much less than the Gault bricks in lime for 18 or 43 weeks, whose load was only half that of the Leicester red bricks in lime. The load was greater than that of the London stocks in lime for 21 weeks, and about one half of the Leicester red bricks after 21 weeks. And without any collateral adhesion the pier had, as he had said, behaved commendably. But now came another point. A great deal attached to the experiments and to the question of the joint in the piers in which there were some closers. Here was a pier of all closers! The question of closers, he thought, had not that significance which many Architects attached to it. If they had a pier built with mortar so that there was no lack of adhesion it was a bad thing to have joinings. It was all a question of the amount and quality of the mortar used.—Mr. W. Woodward said it seemed to him that the result of these experiments was something astounding. Did he understand from Professor Unwin that, given two piers built at different periods, with the same quality of brick, the enormous discrepancies he had informed them of was due entirely to the joint. If so the question was one of more than paramount importance. Then again, his assertion that a pier standing for ten months was weaker than one standing for four months was an astounding theory to him. The results of these experiments must lead them to think that there was something radically wrong with the system of the experiments themselves – that the pressure had been applied in a manner which was not at all a fair test. The Professor's theories seemed to him to be of the weakest description, and he thought Mr. Max Clarke ought to supply the Institute with a little more definite information, for if what had been said was true, it upset the whole course of their experience in brickwork.—Mr. W. White could entirely endorse what Prof. Unwin had said respecting the necessity of good sand; the great importance of its quality for brickwork. He instanced a case in which a vestry at a country Church had called for attention after completion, on account of the mortar used in its structure. And as to the closers, he agreed that they created joints, and thus tended to weaken a building, and he would very much like to see some experiments made on this point, for they had already an instance in which a structure without closers was stronger than a structure with closers.—Mr. Gordon Smith said it was very gratifying to the committee to find that a provincial Society, the Sheffield Society, were taking a keen interest in their experiments, and had requested to be furnished with a set of bricks used in the operations at the West India Docks. The Sheffield Society had prepared a table of results which differed slightly from their's. The Sheffield results showed the difference there was in the Sheffield stock bricks and the London stock bricks, the superior strength of the bricks in the cutlery town, compared to those of the metropolis. When the results of the last experiments were announced, he had said something as to the money necessary to

CARRY ON THE EXPERIMENTS,

and he should just like to give the members of the Institute some idea as to what money was required. It was first of all necessary to lay down 50 yards of rails and to construct cylinders for the removal to and fro of the piers; then 15,000 bricks of different sorts were required, four tons of cement, and so on. He asked the meeting before concluding, to acknowledge the kind assistance of Sir William Arrol, Prof. Unwin, Dr. Longstaff, Mr. Donaldson, the engineer of the Dock Company, and of other gentlemen who had rendered assistance in the carrying out of the experiments.—Mr. Slater, in continuing the discussion, remarked that one of Professor Unwin's most interesting remarks referred to the subject of compression. Hitherto they had been accustomed to regard certain columns or staunchions as the best, but it now appeared, if the Professor's experiments were to be relied upon, and he saw no reason why they were not, that they were making a great mistake if they increased the thickness of a post which had to carry a weight beyond a certain extent. And it had occurred to him, referring to another matter dealt with by Mr. Unwin, that the fact that closers had no beneficial effect upon piers was due to their being considerably higher, compared to their areas, than the rest of the bricks. He thought the Professor was quite right respecting piers without mortar, and he agreed with him that his experiment, considering the structure had no collateral adhesion at all, was very successful. There had been enormous discrepancies in the weights carried in the various experiments made, and he was sure Professor Unwin would agree with him that it was not wise to attach the utmost importance to the results as they at present stood, discrepid as they were. But he thought they had at last found out that brickwork, in mortar and cement, would, if properly treated, stand a good deal more than they thought. He had great pleasure in seconding the vote of thanks to Sir William Arrol and the other gentlemen mentioned—a vote of thanks which, by the bye, was not put to the meeting. — Mr. Hugh Leonard said these were the only experiments on such a scale which had ever been carried out, and there could be no doubt that a great deal of useful knowledge could be derived from them. The sub-committee who had carried out the arrangements were, therefore, deserving of the warmest thanks of the Institute. He differed from Mr. Slater in that they were not to regard the experiments as important at present, and proceeded to assert that the London stock brick was a misnomer. There was no such a thing as the London stock brick. He knew from experience that the bricks known as the London stocks were, for the most part, made in Kent, and, if they looked at the results of the experiments, they would find that these bricks did not bear much more than five tons per square foot before they began to crack seriously, and were crushed altogether at about 22 tons. If real London stocks were obtained, the difference would become most palpable.—Mr. Dawson asked Professor Unwin for further information as to the specification of sand. It seemed that so much depended upon the sand that the fullest information on this point ought to be accorded. May they hope to be delivered from the Rule of the Thumb? They wanted an efficient and satisfactory rule to guide them.—Mr. Beresford Pite wished to know if the committee took any note of

THE DIFFERENCES OF THE GRINDING,

if the bricks were with frogs or without frogs, etc. Would it not have some effect in the result, he asked, if the pressure on the ten-months old piers was suddenly brought to bear upon the structure instead of a gradual increase.—Mr. W. Emerson continued the debate with illustrations of his point in instances from Liverpool and London, and asked the meeting to come to the conclusion that it was impossible to give too much attention, not only to the building of the piers themselves, but to the staunchions, etc. He was followed by a gentleman unknown at the Institute, who suggested the possibility of a protracted pressure gradually bringing about the destruction of a pier. He had attended some of the experiments, and found that long before there was any sign of failure, a strange indescribable sound could be heard inside the pier, and it had occurred to him that the structure was gradually being destroyed by the pressure.—In winding up the discussion, the Chairman expressed gratitude towards the committee and to Prof. Unwin. Of course, it was very unpleasant, he went on to say, to realise that the ideas which they had worked on for years were no longer tenable, yet still they must move apace with scientific investigation. There were many points about their experiments which required a little elucidation. In the first place the number of bricks with which each pier was built, ought to be furnished to ascertain the average. Then again, bricks were not of a uniform quality—the London stock, the Leicester red brick, and blue-and-black Staffordshire, were, no doubt, of varying capacity—and this ought certainly to be taken into consideration. They wanted to know also the proportion with which the sand was mixed with the lime, for this was essentially material. They had, therefore, numerous considerations to take into account in dealing with the results of the experiments – the effect of time and hardening of the mortar, and whether there were any other things of which they knew little, permitting of the introduction of a certain proportion of carbonic gas for instance. These things and many others went to show that the process of crushing must almost of necessity

VARY IN EVERY EXPERIMENT.

Then again he was not at all prepared to say that a perfectly level surface of solution was not the best surface for laying brickwork on, for if the surface was not perfectly smooth they got the solution at a point. It was a matter for the utmost care. And there were many matters which they took for granted which experiment and investigation proved to be wrong, and there could exist little doubt as to the utility of the experiments the Institute promoted.—Professor Unwin, in replying to his questioners, gave it as his opinion that the longer the pressure was gaining its full force, the slower would be the breaking up.—The announcement from the Chairman that the next meeting will be held on 11th January, 1897, for the election of officers and general business, concluded the meeting.

MR. E. A. ABBEY has been commissioned to paint a picture to fill one of the panels in the Royal Exchange. Mr. Seymour Lucas, commissioned by the Corporation, is also at work upon another panel; and Mr. Solómon J. Solomon upon a third.

DURABILITY OF BUILDING STONES AND BRICKS.

BY DR. H. C. SORBY, F.S.A.

AT the monthly meeting of the Sheffield Society of Architects and Surveyors, Mr. R. W. Fowler occupied the chair. There was a large attendance of members and visitors, among those present being Messrs. F. Fowler, C. J. Innocent, E. M. Gibbs, T. Winder, Joseph Smith, W. F. Hemsoll, J. R. Wigful, H. L. Paterson, C. B. Flockton, T. H. Waterhouse, C. Castle, W. J. Hall, J. E. Benton, C. Gibson, Elmund Winder, jun., T. H. Firth, J. Spink, J. T. Cook and others. A lecture on "The Structure and Durability of Building Stones and Bricks" was delivered by Dr. H. C. Sorby, who is an honorary member of the Society. The lecturer called attention to the great importance of this question, and said that its extreme difficulty and the knowledge of such various subjects were probably the reason why so little is known, and why few, if any, specimens illustrating it can be seen in any public museum. Judging from the excellence of much of the work of the Romans in this country more attention seems to have been given to this subject by them than by us now. The decomposition of a stone depends mainly on its chemical composition and mechanical structure. Some rocks contain little or nothing that can be dissolved out or chemically changed by the action of the air and rainwater, and are so solid that the freezing of what little water they can absorb does no harm. Some, indeed, become harder and better. Others, on the contrary, lose certain constituents, which are dissolved out or are broken up by chemical changes, whilst others have

NOT SUFFICIENT COHESION

to resist the disruptive effect of the freezing of the water contained in microscopical cavities. A number of lantern slides were exhibited, some of which were from the very first microscopical sections of rocks ever prepared. These illustrated some of those microscopical characters which play an important part in resisting or favouring decomposition. About four years ago the lecturer made many experiments in order to determine the relative volume of the internal microscopical cavities in various building stones. Some rocks are almost quite solid, whereas others contain one-third of their volume of cavities which can absorb water. Though certain special circumstances may completely alter the result, yet, other things being the same, a relatively large volume of cavities seems to lead to a more rapid breaking up by the repeated freezing of absorbed water. The tensile strength of various kinds of stone probably has received little attention, but has great influence on the disruptive action of repeated freezing and thawing. This variation in tensile strength is quite sufficient to explain the effect of the direction of the bedding in relation to an exposed surface. In some cases the stone itself resists well, but readily breaks up into angular fragments when the carbonate of lime has been dissolved out by the rainwater from the numerous microscopical veins. There are, however, so many peculiarities in different rocks that almost each kind requires special consideration, and some years of difficult research would be required before a better plan could be found than that recommended by Vitruvius, more than 1,900 years ago, viz., to expose the stone to the weather through a summer and winter, and reject as unfit for use any that show sign of change, a plan that would

NOT SUIT CHEAP BUILDERS.

The lecturer then considered the case of special building stones of remarkable durability, used in various parts of the country, illustrating the subject by specimens or lantern slides of well-preserved constructions of early date. Unfortunately, many of these stones were used up and exhausted some hundreds of years ago. He then remarked on the difference between modern mortar and that made by the Romans with fresh slaked lime and pounded well-burnt bricks, which, in many cases, is as good now as when new, some 1,800 years ago. This led to the consideration of bricks, many of those of Roman make being as good as new, whereas so many

MODERN BRICKS ARE WORTHLESS

after a comparatively few years. The explanation of this is probably because the Romans, following the advice of Vitruvius, tempered their clay through a period of from three to five years, whereas, according to what some practical brickmakers say, many are now made from clay that has never been tempered at all. The result is that the soluble salts are included in the bricks and break them up by efflorescence and by destroying the cohesion. The result is seen in Cambridge, where the bricks in the oldest work are still in good condition, whereas the modern bricks, though more uniform in colour and shape, are sometimes much decomposed, though not one-tenth the age of the others.—At the close of the lecture it was announced that Mr. William Denton and Mr. Benjamin Powell were elected associates of the society; that the following has been elected by the council as lay members, viz.: Messrs. Henry Longden, B. D. Wrangham, C. Castle, T. H. Firth, and W. W. Skelton. A statement was made to the effect that Mr. C. S. Sandford had passed the fellowship examination of the Surveyor's Institution, that Mr. C. F. Innocent had recently passed the final examination of the Royal Institute of British Architects, that Messrs. Frank Wilson (placed third), T. H. Robinson, and C. W. Clarke had passed the intermediate, and Mr. R. B. Brook-Greaves had passed the preliminary.

KEYSTONES.

THERE are two vacancies for surveyors in the land agents' department of the London, Brighton, and South Coast Railway Company. The candidates must be between 20 and 30 years of age, and the salaries offered are £180 and £100 respectively.

ADDITIONAL help for the decoration of St. Paul's is needed. A sum of £3,000 has to be expended on repairing and improving the organ, and a further substantial amount is required for decorating the dome. Subscriptions will be thankfully received by the treasurer, the Dean; or by the hon. secretary, Mr. G. J. Murray, at the Chapter House, St. Paul's Churchyard.

AT the Church of St. Sepulchre, a curious old relic was discovered a few days ago, in an old chest that had remained hidden away in the vestry for years. The treasure that has thus been brought to light is the bell that the crier, in the Stuart period, used to ring outside the condemned cell at Newgate on the night prior to the execution of the poor felon who was its tenant.

THERE will be a new "clou" at the Paris World Exhibition in 1900. Two Parisian stonemasons have been working fifteen years at a stone model of the Montmartre Basilica, which will be one-twenty-fifth of the size of the real edifice. The smallest details of the cathedral will be reproduced. The work is now 12 ft. in height, and is complete with the exception of the dome and tower, which have yet to be finished.

A FEW minutes after ten o'clock the other night an explosion occurred in the telegraph wire connection box on the pavement in the Strand, immediately opposite Charing Cross Railway Station. The iron frame, as well as the stone cover, both of considerable weight, were forced out and thrown across the pavement, the stone being smashed to pieces. The report of the explosion was heard for some distance, and caused great excitement. Fortunately no one was injured.

IT seems that the institution of a third-class Pullman by the South-Eastern Railway does not, after all, mark a "new epoch" in railway travelling. "I well remember," writes Mr. John Place, of 188, Fleet Street, "third class Pullman carriages running on the Midland Railway twenty years ago. If my memory serves me right, it was in 1875 or 1876 that the late Sir John Allport introduced this class of coach after his return from America. The train ran from Manchester to London and back, and was eventually taken off on account of small patronage."

AT Gateshead a meeting was recently held with the object of taking action to support the scheme for raising a fund for the erection of a new infirmary in Newcastle-on-Tyne. It is hoped to get a good round sum from Gateshead, say from £15,000 to £20,000. As to the site for the new infirmary, the present site will probably be decided upon, as it is the most convenient and the most suitable for the purpose. Up to the present the fund reaches something over £70,000.

Professional Items.

BANGOR.—At the last meeting of the Guardians of Bangor and Beaumaris Union, attention was drawn to the overcrowded and insanitary state of several houses within the borough, referred to by Mr. Bircham, Local Government Board inspector, in his address to the guardians on the 6th ult. It was decided to bring the matter before the Bangor Corporation.

BELFAST.—An agitation is on foot to secure a new hospital in that city. According to a statement signed by the staff of the Royal Hospital, Belfast, there has for some years existed an urgent need of additional hospital accommodation in Belfast. The present accommodation is not deficient in quantity alone; it is defective also in point of quality. Hospital construction has made great progress in recent years, and it is not to be expected that an institution so old as the Royal Hospital should satisfy modern requirements. The main block of the present buildings was erected in 1817, when Belfast was a small town of about 30,000 inhabitants, and is now quite antiquated. The staff is unanimously of opinion that a large new general hospital on a new site is urgently required. It should be erected according to the best and most scientific plans, equipped with every appliance for the relief of the suffering, provided with the most perfect sanitary arrangements, and having a site spacious enough to give opportunities for suitable open-air exercise to such patients as could avail themselves of it, and large enough to admit of future extensions.

BIRMINGHAM.—A new prison-gate mission house and hall has been erected opposite the gaol at Winson Green. The club room or hall is capable of seating 180 men, and with the ante-room about 230. There are 10 rooms above the ground floor, and in those the organising secretary and the prison-gate missioner and his wife will reside. There is, moreover, accommodation to take in two or three cases as need arises. The building has been erected from the designs of Mr. W. H. Bidlake, and has cost about £1,500.

CORK.—In connection with the burning of Wesley Chapel, it was at first feared that the rebuilding and renovation rendered necessary by the fire would not be completed in time for the assembling of the annual Conference in Cork next June, but it is now hoped that the Church will be ready for reopening before that time.

DARLINGTON.—The result of the competition for the laying out of the Southend Estate, as a residential building estate is that the first prize has been awarded to Mr. Robert E. Brinkworth, Architect, Surveyor and Land Agent, of Chippenham, Wilts; and the second to Mr. S. E. Burgess, C.E., of Stoke Newington, London. There were a good number of competitors.

DUNDEE.—Mr. George C. Buchanan, the Harbour Engineer, has prepared a report regarding the low-level outfall sewer at the Harbour. The sewer, he says, is constructed of masonry and brickwork of varying internal dimensions up to a certain point, from whence it consists of two iron pipes, 4 feet in diameter, laid parallel to each other. The last 60 feet of the pipe, which is outside the river wall, has subsided somewhat, in consequence of the constant dredging necessary to keep the outfall free from obstruction. The settlement has probably been gradual, and does not materially affect the discharge of the sewer, but increases considerably the cost of dredging, as it necessitates the bottom being kept dredged deeper than would be necessary if the pipes were kept upon a higher level. The flooding of premises in the town he believes to be in a great measure due to the difficulty there is in obtaining a free discharge from the sewer, however clear the mouths of the pipes are kept. For about ten days in every month the greater portion of the sewer is continuously tide-locked, and the sewage can only get out by backing up until a sufficient head has accumulated to discharge against whatever level the tide may be. During high spring tides, should there happen to be simultaneously a heavy rainfall, the sewage and storm water must necessarily accumulate in the sewer and finally enter the lower parts of adjacent premises. It is usual in

the case of a tide-locked sewer to keep out the tidal water by means of flap valves, but in the present case these would be practically useless, as the large volume of storm water brought down after heavy rains would gather behind the valves as fast as the tide rose. During the last ten years 56,568 tons of material have been dredged from the mouth of the pipes, at an average annual cost of £200, the greater part of this material being causeway sand and refuse brought down the sewer.

MERTHYR.—A new Sunday School in connection with Elim Baptist Chapel, Penydarren, Merthyr, is now in course of erection and ten memorial stones were recently laid in the building, which is to cost about £1,000. The Architects are Messrs. Johnson and Williams, Merthyr and Abergavenny, and the contractor, Mr. John Jenkins, Canal Wharf, Merthyr.

MUNDESLEY.—A site having been purhased for the new Wesleyan Chapel, plans of a commodious building have been prepared by Messrs. Eade and Johns, Architects, of Ipswich. Tenders have been sent in, and that of Mr. R. Eastoe of North, Walsham, for £680, has been accepted. The work will probably be commenced early in the new year, and it is hoped to have it completed by the end of June next.

NEWARK.— Extensive alterations are contemplated at the Wesleyan Chapel, Newark, which when carried out will probably involve an expenditure of upwards of £3,000. The proposed scheme provides for the partial reseating of the chapel and other improvements in the interior, as well as extending the school premises. With a view of meeting these requirements, an adjacent building known as the "Volunteer Inn," has been purchased.

PLYMOUTH.—By the opening of the New Higher Grade School in Regent Street, Plymouth, which is expected to take place early in the spring of next year, a larger organised science teaching scheme will come into operation. The new building, unfortunately, stands on a site which is so hemmed in as to obscure much of its size and Architectural beauty. The contract price was about £12,000. The building is constructed of local limestone, with Hamhill stone dressings. It is English in style, the windows being surmounted by gables, and the roof by a flêche, which serves the purpose of a ventilator. Messrs. Westlake and Waldron are the contractors, and Mr. Snell is the Architect. The building will accommodate 648 scholars—boys and girls—and an arched entrance has been provided for each department. The structure covers an area of 120 ft. by 60 ft.; and consists of three stories 16 ft. high, and a basement. The fittings throughout are of pitch pine. On the basement floor are a boys' workshop, the caretaker's rooms, and the heating apparatus on one side of a passage, and a manual instruction room, measuring 51 ft. 10 in. by 24 ft. 9 in. on the other side. The ground floor, which will be the boys' department, has five well-lighted class-rooms from 20 ft. to 30 ft. by 20 ft., each capable of accommodating 50 to 70 scholars; a central hall and gymnasium, 45 ft. by 29 ft.; hat and cloak rooms, and the head master's office. The first floor is designed in precisely the same way, and a storage room has also been provided. Mezzanines have been fixed between each story. The top floor will be confined to the work of the elementary science teaching. The accommodation here includes on the one side of the passage a chemical laboratory (40 ft. by 25 ft.), a room for the chemical master, a preparation and balance-room, and store-rooms and library; and on the other side there are a lecture-room (30 ft. by 25 ft.), with gallery and platform, and two Art-rooms—one for flat drawing and the other for casting and modelling.

SHEFFIELD.—The M. S. and L. Railway Company has commenced an extensive scheme for enlarging the Victoria Station, and the Sheffield Daily Telegraph says that when the work is completed there will be ample accommodation for dealing with the ever-increasing passenger traffic. The station is built on a long viaduct. The extension commences on the north side of the station, where Lumley Street—called Blast Lane by many—passes underneath the railway line. This bridge is being widened to the extent of 28 feet on the one side, and 3 feet on the Sheffield side, though the latter addition does not extend very far, the object being to fill up a corner. On the 28 ft. side a girder bridge will be placed, stretching across to the works of Messrs. Thomas Turton and Sons, Limited. The workshops will be bridged over, and a girder bridge will be erected over the canal. The dam for the foundations is already being sunk, and care has been taken not to interfere with the navigation. The addition means widening the whole length of the station by 28 feet. At present there are three sets of rails, and at the back of the station, and hidden by a wall, is the goods line. The wall will be pulled down, and the platform made an island one, thus giving an additional set of rails for "up" passenger traffic.

SUNDERLAND.—At a meeting of the Sunderland Town Council last week, the following motion was submitted—"That the requirements of the borough and immediate district necessitate the erection of a bridge over the River Wear, westward of the existing Wearmouth Bridge, and that the subject be referred to the Bridge and Ferries and the Highways Committees jointly, with instructions to report their recommendations for carrying into effect the foregoing resolution." It was stated that the population of the district was about 65,876, whereas the population at the time of the erection of the Wearmouth Bridge was only 24,444. The latter was opened in 1796, and it had cost £32,444. In 1858 the total tolls ran to £2,463 6*s.* 7½*d.*, whereas when tney were taken off the amount for that year amounted to £4,394 18*s.* 10*d.* If the Sunderland Corporation would not build the bridge a number of the townpeople were prepared to bring forward a scheme; but it was the duty of the Corporation to construct one. Assuming the cost to be £100,000, the interest and sinking fund would annually amount to £4,479 3*s.* 4*d.*, the expense of collecting tolls would be £200, repairs, paintin', &c., £200; lighting, £20; cleansing and watering, £100; establishment charges, insurance, &c., £100; or a total of £5,399. The income would be something like:—From foot passengers, £4,875; from horses and carriages, £1,000; or a total of £5,875. Thus there would be an annual profit of £476 3*s.* 4*d.*—The motion was carried

SWANSEA.—A committee of the Corporation has under discussion the necessity of providing additional accommodation for the borough engineer's and borough accountant's departments at the Guildhall. The intended buildings, which are estimated to cost about £5,000, will consist of three floors, where provision will not only be made for the departments named, but for improvements required in the Assize accommodation.

WAKEFIELD.—A new Infirmary is to be erected at the Wakefield Union Workhouse, and the foundation stone was recently laid. Mr. William Watson, Architect, Wakefield, has prepared plans and estimates of cost, and the buildings comprise accommodation for 150 inmates, and provision is made for future extension if required. The new buildings, two stories in height, will be erected on a site of about three acres at the rear of the workhouse. The infirmary will consist of two pavilions, about 186 ft. by 28 ft., with an administrative block mid-way between them, and communicating with them by open corridors. The distance of the pavilions from one another will be 130 ft., and from the administrative block 42 ft. The front of the building will face due south, in which direction there is an uninterrupted view across country of several miles, and provision is made for a future extension of two pavilions on the east and west respectively. The buildings are planned to accommodate 70 male and 78 female patients, a total of 148, and there will be large day-rooms, which could be used as sick wards when required, thus materially increasing the accommodation. The administrative block will contain rooms for the surgeon and nurses, and waiting-rooms for males and females. A mortuary and disinfecting station will be erected on the eastern portion of the site, and a new laundry near the eastern boundary. The total estimated cost of the whole scheme, including the purchase of land, the erection of boundary walls, electric lighting, engine and boiler houses, furnishing, &c., is £36,000.

SOCIETY MEETINGS.

British Archæological Association.—The third meeting of the session was held on December 2nd, at the rooms in Sackville Street, Mr. Thomas Blashill, Hon. Treasurer, in the chair. Mrs. Marshall exhibited a silver sixpence of the reign of Elizabeth. Mr. Collier submitted two interesting terra-cotta figures from Egypt, one supposed to represent "Thoth." Mr. Earle Way exhibited a collection of silver thimbles, dating from the seventeenth century, found in Southwark, and reminded the meeting that thimbles were originally called "thumb bells" by the sailors who used them in sail-making, and on old London Bridge there was a shop specially for the sale of them. Mr. Way also exhibited the following articles:—a silver coin of James I. (one of a collection of about 2,000 coins, ranging from Elizabeth to Charles I., recently discovered in Devon), a very beautiful alabaster vase or bottle, called a "box," found at Thebes by Professor Petrie, of the date of about 3000 B.C., and supposed to be similar to the Scriptural "alabaster box of precious ointment," also a Roman lamp having Greek characters on the under side, from the collection of the late Mr. E. G. Loftus Brock, F.S.A. Rev. J. Cave Browne read a paper upon "the Fraternity of Corpus Christi at Maidstone." The buildings of the Fraternity, which still exist, were visited by the Association during the recent congress. The Guild of Corpus Christi was constituted by Pope Urban IV., in 1261, and was confirmed by Pope John XXII., in 1318, and was under the Benedictine rule. The establishment of guilds or brotherhoods in England dates from a very early period; they were formed for the protection of some trade or industry and the general interests of their members, and the provision of pecuniary assistance in time of need. The Guild of "Corpus Christi," however, differed from these in having more of an ecclesiastical, if not strictly religious, character. The first Thursday after Trinity Sunday was the day fixed for the observance of the festival. The "Fraternity of Corpus Christi of Maidstone" was in existence in the early part of the fifteenth century, as there is extant a will of one Richard William, which was proved in the year 1438, containing a bequest to the "Brethren of Corpus Christi" of ten shillings, a sum equivalent to as many pounds sterling of our money. The old hall or refectory of the Fraternity still remains, and retains its original proportions and much of its original character.—Mr. Patrick, in the absence of the author, read Mr. Park Harrison's paper on "English Romanesque Architecture," which dealt with the pre-Norman date of the two Churches at Lincoln, respectively, St. Peter's-at-Grotto, and St. Mary-le-Wigford. The paper elicited considerable discussion, in which Mr. Chas. Lynam, Mr. Compton, Mr. Patrick, and the chairman took part.

Sanitary Inspectors' Association.—At a general meeting of this Association, held at Carpenters' Hall, London-wall, a vote of condolence with the family of the late President of the Association, Sir Benjamin Ward Richardson, whose death had taken place since the last meeting, was unanimously passed. The election took place of twenty-eight members, two associates, and one honorary member—namely, Mr. W. F. Higgins, J.P., President of the Northamptonshire branch of the Association. A paper was read by Mr. T. F. Strutt (Strand Board) on the "Influence of Our Surroundings." In the course of the paper the great improvement which had taken place in the Strand district was mentioned, the improvement being attributed to the plentiful use of water—first, for washing the streets, and, secondly, for flushing the sewers—and he advocated the application of the same remedy to all other districts.

The Sanitary Institute.—At the Parkes Museum, Margaret Street, W., an Examination for Inspectors of Nuisances was held on Friday and Saturday, December 4th and 5th, 1896. 134 Candidates presented themselves. Questions were set to be answered in writing on the 4th, and the Candidates were examined *viva voce* on the 5th. 83 Candidates were certified, as regards their sanitary knowledge, competent to discharge the duties of Inspectors of Nuisances.

Correspondence.

To the Editor of THE BUILDERS' JOURNAL

EXETER COMPETITION.

SIR,—Allow me to express my entire concurrence with the remarks in this week's BUILDERS' JOURNAL, on the subject of the recent competition for the Church of Emmanuel at Exeter. From what I can gather it appears that the committee themselves selected from amongst the 405 designs sent in, three which seemed to them in their unexpert wisdom suitable. They then went through the farce of appointing an assessor to select the best from the three. This is an insult added to the original injustice meted out to the competitors. The committee were of course quite within their legal rights, according to the conditions issued, to act as they did; but the only way in which they could have shown their good faith towards the competitors, would have been to submit the whole of the designs received, without discrimination, to a professional assessor. This is, without doubt, what every competitor naturally expected would be done or he would not have competed. The only thing that could be done by the unsuccessful men, doubtful though it might be of any real use, would be to formulate a joint protest and forward it to the committee. One would have thought that nothing of this kind could have occurred in connection with a building of this character. Your suggestion as to publishing a selection of the unsuccessful designs will no doubt be favourably considered by the majority of the competitors, as it will give all of them an opportunity of comparing one another's with the successful design, which has already been published in one of the professional journals. It would be interesting to take the votes of the unsuccessful men at the completion of the series, as to which they would have selected had they been in an assessor's position. If you would care to place my design amongst those from which you will make your selection I shall be pleased to send it to you.

Before closing, permit me to offer my congratulations upon the production of the fine new monthly, "The Architectural Review." It is worthy of all praise and support, and makes one look forward with anticipatory pleasure to the appearance of the next number. I wish it every success, which it deserves.

Yours truly,
CHARLES V. JOHNSON.

14, Keston Road,
East Dulwich, S.E.
10th December, 1896.

To the Editor of THE BUILDERS' JOURNAL.

IS A PROFESSIONAL ARBITRATOR AN UNMIXED BLESSING?

SIR,—I enclose herewith a cutting from an Exeter evening journal, which forms a sequel to the competition lately decided for the pavilion on Torquay Pier, and in relation to which I ask the above question, my reasons being as follows:—

1st. The stipulated amount the job was to cost was £5,000. Now, as an unsuccessful competitor, I took the trouble to go down to Torquay to see the successful designs which were on view in the Town Hall. What was my disgust to find, as the enclosed cutting proves, that the selected design could not possibly be done for anything like the money stipulated. Surely we have a right to expect otherwise when a vice-president of the Institute is the assessor.

2nd. As a *design* (meaning the elevations), in my humble opinion, this first premeditated design shows no Architectural ability whatever, whereas the second design shows both thought and ability.

Why, if plan only is to be considered, should we be asked to submit elevations at all? It seems to me it would be better for all concerned, including the building, to assume that the man who can make the best plan will have ability enough, when the time comes, to make a presentable elevation. Of course it may be that the author of the design placed first was aware from experience that the elevation did not matter, and so did not trouble. However, the final throwing over of the undertaking will also be a little useful experience, I trust, to the arbitrator as well as the competitor.

"Alderman Bovey, at yesterday's adjourned meeting of Torquay Town Council, called attention to matters of urgent importance relating to the proposed pier pavilion, and moved that in consequence of the very large expenditure required to prepare the site, &c., for the erection of the pavilion, instructions be given to the Architect to proceed no further, pending a reconsideration of of the whole scheme. The preparation of the site alone, said Mr. Bovey, would cost £4,300, and, as Chairman of the Harbour Committee, he entirely disassociated himself from all responsibility if they went on with the scheme.—Mr. R. Crocker seconded, and said they would have shown more wisdom if they had looked before they leapt with such a big undertaking.—Mr. Beavis said the pavilion would cost nearer £14,000; and, after further discussion, the motion was unanimously carried. Poor old pavilion! It was taken up and thrust forward so keenly, and now has been dropped like a hot potato."

I am, Sir,
Your obedient servant,
DISGUSTED COMPETITOR.

Trade and Craft.

SWANSEA STEEL WORKS TO BE ENLARGED.

The Mannesman works at Landore are to be further enlarged. The British Government had decided to use nothing but steel, and the Mannesman Company had recently received large orders from the English, Russian, and Chinese Governments. It is intended, therefore, immediately to increase the accommodation at the works to carry out these orders and to prepare for other big contracts which are expected. This meant the employment of a large number of additional hands.

STRIKE OF YORKSHIRE ENGINEERS.

The engineers employed by several firms at Cleckheaton, near Leeds, have come out on strike owing to the refusal of the 2*s.* a-week advance applied for, with a demand for a working week of 53 hours. The men allege that they have not had an increase of wages for 24 years, and that even with the advance now demanded, they would be receiving 2*s.* a week less than those working outside the town.

THE LONDON BUILDING TRADE.

The President of the Central Association of Master Builders of London has issued a statement in which he says, "It is generally known that differences and disputes have prevailed during the present year in this trade. Agreements were eventually arrived at which it was hoped would be the means of eusuring a period of contentment and quietude for some time to come. Up to the present no trouble has arisen except with the members of the Plasterers' Association. The members of the N.A.O.P. abstain from taking employment in certain firms, and, in cases where decoration work is required for contracts undertaken by them, and which, as a rule, has to be obtained from specialists, the body influences the workmen so as to prevent the work being supplied. This must be assumed to be an organised interference on the part of the Plasterers' Association, and its individual members have little freedom of action. It must be apparent that no association of employers can quietly submit to any of their members being subjected to such a system of persecution and annoyance, especially as it is undoubtedly in direct violation of the agreement."

HEAVY COMPENSATION CLAIM.

At the London Sheriff's Court, the case of Messrs. Richardson *v.* the Central London Railway Company (Limited), was recently heard. It was an action to recover the sum of £16,000 as compensation for the compulsory acquirement of four acres of land at Wood-lane, Shepherd's Bush, by the railway company, in connexion with their line from the City to Shepherd's Bush. Messrs. Richardson claimed as compensation £8,000 as the value of the land, and £8,000 as depreciation of the remaining twelve acres by reason of the nature of the works and premises to be constructed by the railway company. The jury returned a verdict for £7,010. Amongst the witnesses called on behalf of the claimants was Sir J. Whittaker Ellis, who pointed out that the estate was capable of important development, and was extremely valuable as building land for residential purposes. On the other hand, Mr. Freeman, Q.C., on behalf of the company, stated that the land was practically valueless in consequence of its having been condemned by the London County Council for the purpose of building dwellings by reason of its peculiar situation.

NEW BATTLESHIPS.

The Thames Ironworks and Shipbuilding Company, Limited, of Blackwall, have secured the order for another battleship, 14,500 tons displacement, for the Imperial Japanese Government The same firm launched last March, and is now completing, the first-class battleship "Fuji," for the same Government, and still more recently they laid the keel of the new first-class battleship "Albion," for the British Government. It is quite without parallel for one firm, and that a Thames firm, to have on hand at one time three first-class battleships of the collective displacement of 40,000 tons.

A NEW FORCED DRAUGHT FURNACE.

The Gosling forced draught furnace has been on trial at the Phœnix Brick Works, Cardiff, which are owned by Mr. J. W. Courtis, of Cardiff, with very satisfactory results. The Gosling patent forced draught furnace claims the advantage of raising a greater amount of steam in comparison with the amount of fuel used, than is the case with some half dozen other patents with which it was tested. Another advantage is that it permits of the use of small coal. The chairman of the furnace syndicate states that at a certain collier in the Midlands, after careful tests, the company decided to use Gosling's system only, and Prof Galloway said in his opinion there must be a saving of 10 or 12 per cent. of coal effected in using the system, and he was of opinion, from the tests he had made and from his observations, that a saving of fuel would be effected in conjunction with a saving in capital outlay. Forced draught furnaces would, he thought, in future take a very important place amongst colliery appliance. Mr. Courtis' testimony was short and to the point. Before he used the system he could not raise the necessary amount of steam even with large coal, and he was thinking about putting down another boiler. Now he had no difficulty with the steam, and he could use small coal.

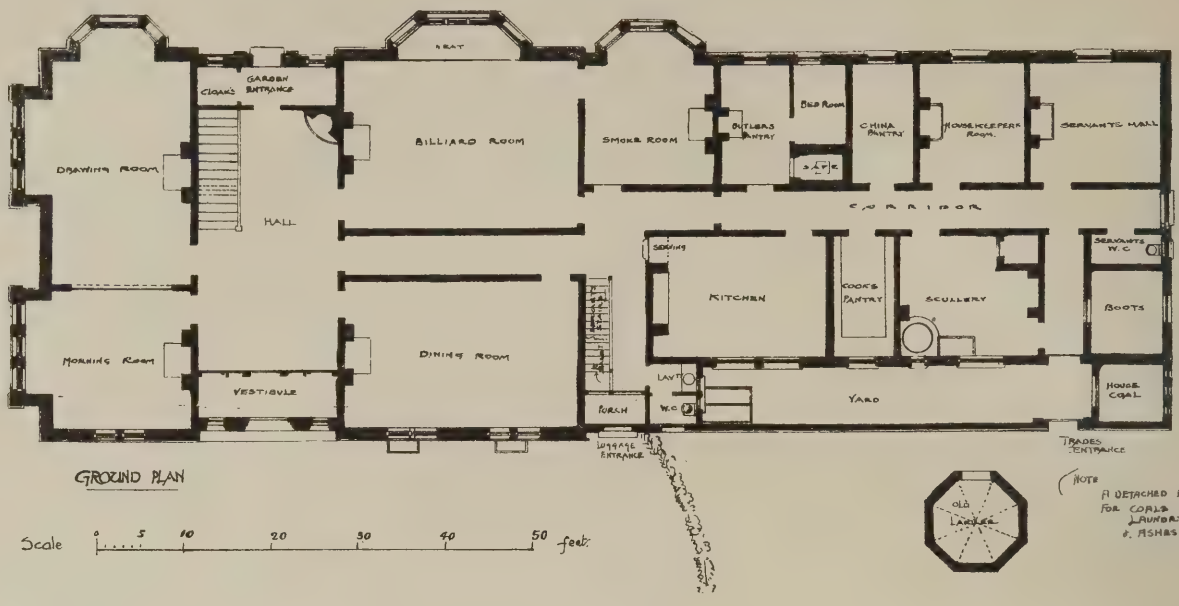
WIRED GLASS.

Some experiments were recently made to determine the fire-resisting qualities of wired glass, that is, glass containing in its texture woven wire netting, the results of which proved that glass of this kind is capable of withstanding a high temperature, very much higher than ordinary glass, without melting or losing its continuity, even when suddenly drenched in a heated state in cold water. The conclusions drawn from the test are that wired glass can be safely used in skylights, and in such situations will stand a severe fire, and not give way when water is thrown upon it. The capability of the wired glass to withstand a temperature beyond the melting point of glass appears to be due to the fact that the network of wire in the glass acts as a good conductor of heat and thereby prevents the accumulation of sufficient heat to melt the glass.

IRON WORKS IN SUSSEX.

In view of the development of the coalfield at Dover, arrangments are being made with a view of re-establishing ironworks on a large scale in Sussex. Iron ore is found plentifully in Sussex, which, until the year 1728, was the principal centre of iron manufacture in England. The iron rails that used to surround St. Paul's Cathedral were cast in Sussex. The last furnace in Sussex was extinguished at Ashburnham in the year 1828. The fuel used for the smelting was wood, but the county became so denuded of timber in consequence, that Acts of Parliament were passed prohibiting the furnace, and the manufacture of iron went northwards to the coal centres. It has mainly been the question of the price of coal which has prevented the iron ore being worked in Sussex.

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The Builders' Journal

AND

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ILLUSTRATIONS.

Lithographic Plate:—Aldershaw, Lichfield.—Messrs. Hickton & Farmer, Architects, Walsall.

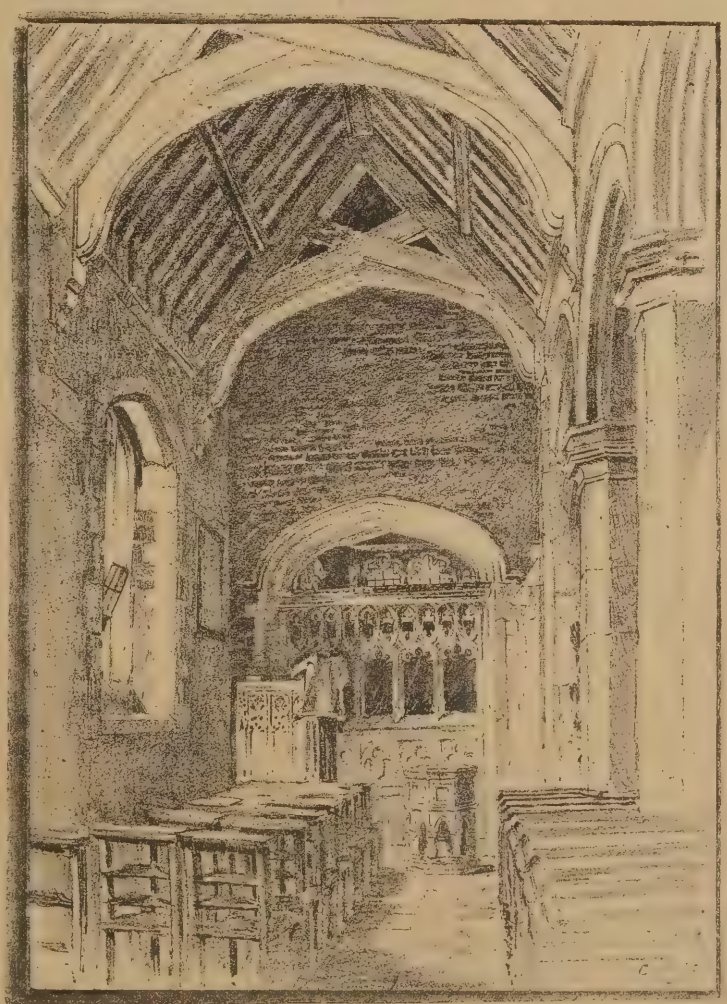
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Peterborough West Front.—The Architectural Review and the Daily Chronicle.

"RESTORATION," which has been so well defined as an unreasoning lust for destroying the beautiful, has, you will be glad to know, recently received an unmistakable check at Peterborough. A pleasant rumour, although it is a rumour only, reaches me from that city, to the effect that the work of rebuilding is stayed, at all events for the time being. This will be good news to all Art lovers, and especially to those who have been so active in opposition to the proposals of the Dean and Chapter. Of these surely the Daily Chronicle, among newspapers, the Societies for the Protection of Ancient Buildings and of the Antiquaries, deserve the most praise. But for their prompt and energetic action one of the loveliest works of Art in the world would by now, in all probability, have been nearly ruined. For it is well to bear in mind that it was not restoration—bad as that would have been—but entire rebuilding that was proposed. It is true that there was, in the original appeal for funds, a slippery sort of saving clause, to the effect that all the stones would be numbered and replaced in their original position; but those who have had experience in such matters know perfectly well that once the old stones are removed from their beds not two in ten would be fit to go back again. Therefore, it is clear, from that appeal, and from the Architect's report, that what would actually reappear after the scaffolding was removed, at the completion of the work, would be an entirely new front, as sharp, as clear, and as "new" as the north transept of Westminster Abbey. It would have been learned, scholarly, correct, without a doubt—Mr. Pearson could give us nothing which did not include all these qualities; but with all due respect, that would not have been a sufficient recompense for the loss of one of the few masterpieces of the Art of Architecture in mediæval times. In our entire Artistic possessions there is nothing so valuable as this Gothic front of Peterborough in England to-day. We wonder what would be thought if a professional picture-restorer were allowed to have his own way unchecked, upon, for example, the £70,000 Madonna, by Raphael, in the National Gallery. Yet the West Front of Peterborough is worth all the masterpieces Raphael ever painted, or anyone else, for the matter of that. As touching this question of restoration I know well there is a wide difference of opinion, even among Artists, upon it. But I think, in the main, they will agree with Mr. Henry James, when he says, "I prefer, in every case, the ruined, however ruined, to the reconstructed, however splendid. What is left is more precious than what is added. The one is history, the other fiction. One is positive, so far as it goes, the other fills up the void with things more dead than the void itself, inasmuch as they never had life." That, I think, expresses exactly the attitude all Artists take towards restoration. With regard to the West Front, two things should be emphasized—first, that it is incomparably the finest in England; there is nothing in this country to equal it in point of beauty, in masculine strength and originality of design, and there is nothing to beat it in point of delicacy and refinement of detail. Secondly, it is not, as some superficial Art critics have called it, a mask and a sham, hiding and not expressing the plan. From a careful and complete study recently made on the spot, it is quite clear to me that this West Front is, in reality, the termination of a magnificent conception, for the entire rebuilding of the Church in the perfection of early English Architecture. Judging from what now remains of that daring scheme, if it had been carried out in its entirety there



THE NORTH AISLE OF CAMPTON CHURCH, BEDFORD. REBUILT BY J. P. WHITE. FROM A PENCIL DRAWING BY C. E. MALLOWS.

would have been nothing comparable to it in the history of Gothic Architecture. As it is, this fragment compares to-day with such west fronts as Amiens, or Nôtre Dame of Paris, and most certainly does not lose, but gains, by the comparison. As the west front to the completed design, it would have been equally as logical and expressive a work as either of these. Now as to the saving of this glorious work. There are two main causes which are responsible for most of the present and past troubles to the Cathedral generally. One is due to the draining of the Fen district, which has caused the land around Peterborough to become drier, and has resulted in the compression of the clay, through the water leaving it. This has been going on for many years, and is supposed by some authorities to be the primary cause of the original settling of the Cathedral foundations. The other cause is really owing, not to the bad construction of the design, but from the want of satisfactory foundations. After the unfortunate manner of many mediæval builders, those of Peterborough concerned themselves very little about the foundations of their work. So little, indeed, that with the rock within a few feet of the ground level, they did not even trouble to go down to it to start their footings, but built them directly upon the shifting layer of clay which covers the rock, with the result that the whole of the West Front, in its entire height, has been thrown outwards 2 ft. from the perpendicular. In order to obtain the necessary stability for the Front the Society for the Protection of Ancient Buildings consider it necessary that the foundations should be carried down to the solid rock by under-pinning, and is of opinion that the movement of the West Front is entirely due to the foundations having been placed on the clay which overlies the rock as just described. This seems so obvious that it surely admits of no argument. Yet the Architect, in his report of February, 1896, said "that the conditon of the masonry above the great arches is not so much due to any settlement as to the effects of time!" "Not so much due to settlement," when the building is placed on shifting clay! To remedy, therefore, one of the fundamental dangers, it is necessary that the work of under-pinning should be proceeded with as soon as possible, and in the thorough manner proposed by the Society. But, in justice to Mr. Pearson, there is a valuable suggestion made by him which is worth careful consideration. He has cut back the ground under the piers for 3 ft. and built a 3-ft. wall from the rock upwards on the two front sides, leaving the back and the whole of the centre resting on clay. This has been done, I believe, with the end in view of bringing the Front back to the perpendicular again. I understand Mr. Pearson thinks, if the outer (or western) part of the foundations is made firm in this way, and the inner (or eastern) part left still resting on clay, what may occur will really be the reversal of what has already happened. That is, the Front will be tilted back eastwards into its original right position. But it is difficult to see how the Front could go back again to the upright without clearing away everything between it and the main building, and this could not be done without great destruction of valuable work. Why, however, try and get it back to the upright at all? It is perfectly safe as it is, provided the foundations are treated in such a manner to prevent it going further. The difference between the proposals of Mr. Pearson, on behalf of the Dean and Chapter, and those by Mr. Philip Webb, on behalf of the Society, briefly put, is this:—The first means entirely rebuilding—that is to say, the ultimate result would be a modern West Front, in which there would be but few, if any, of the old stones left. The second means putting the building *as we see it to-day* into sound and secure repair, and that can be done entirely from the inside, the outside being *practically left untouched.* Who among Artists will say that this latter is not the better of the two, leaving, as it does, to us and to posterity the exterior work as it left the hands of the original builders. As to the practical side of the question, the opinions of an eminent engineer and of a builder of large and varied experience in Church repair agree that the scheme the Society suggest is a wholly practical and feasible one, both in principle and in detail.

THE ART EDITOR OF
THE ARCHITECTURAL REVIEW.*

* The above was written in the form of a letter, at the request of the Editor of the Daily Chronicle, and appeared in that paper on Saturday last.

ART IN WALES.

MR. LISTER JONES presided over a meeting of the Cardiff Impartial Society last week, at which Mr. E. Seward, R.C.A., Cardiff, read a paper on "Some Popular Uses of Art." Mr. Seward urged that Art had an insufficient place in the national life of the country. What was needed, he said, was that Art should be better known among the masses. A yet greater study of design, and the cultivation of a power of drawing, would greatly increase the national usefulness. He hoped that Welsh Art would especially benefit from the great interest taken in it by Professor Herkomer; he (Mr. Seward) believed that nothing would so readily lead to progress as the personal influence which a well-recognised artist of worth and strong individuality might exercise by his enthusiasm. Perhaps, for this reason, the native strength of Wales might develop latent freshness, but whether Professor Herkomer found an aid to continuity and permanence through the Eisteddfod or no, his efforts could not fail to do something for a subject which badly needed popularising in Wales. The benefits of the Art gallery, Mr. Seward said, had been insufferably thought out by their good friends who insisted that Public Art Galleries and libraries must remain rigidly shut up on Sundays. He regarded them as Sunday Schools, where grand object-lessons of humanity and of that great guide and teacher, nature herself, were being taught, and he therefore strongly advocated Sunday opening - part of the day at least—of all public Art galleries and libraries.



LISKEARD CHURCH, FROM THE SOUTH-WEST.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

PROPOSED REBUILDING OF LISKEARD CHURCH TOWER.

A PROTEST.

BY JOHN E. NEWBERRY.

I WISH to draw the attention of all interested in the preservation of ancient historic buildings to the interesting Norman tower of Liskeard Church.—In October last, a committee invited Architects to make designs for rebuilding this feature, and the drawings are to be sent in on the 1st of January next. The instructions issued are quite insufficient, and have been evidently drawn up with an entire lack of knowledge of the method of conducting a competition. On enquiry, the committee states that it is intended to obtain a professional assessor, "but we cannot guarantee it." The first stipulation is that the tower shall be built of granite; introducing as far as possible the Architectural features of the present tower, *consistent with the Architecture of the Church*. This excludes the local stone, used for the walling of the Church, which is of beautiful and varied colour, and also precludes the possibility of building in the Norman features, as the Church is in the Cornish phase of the Perpendicular manner. In fact, it is evident that a tower of an entirely new design is wanted, with "a floor of wrought-iron joists and concrete" to the ringing chamber —the whole expense not exceeding £3,000, "except the bells." No plans or measurements of the Church are supplied, and anyone who makes a design must obtain such information for himself. This competition is therefore unlikely to attract Architects of reputation. Most of the following particulars are derived from an interesting pamphlet, entitled "Historical and Architectural Notices of the Parish Church of St. Martin, Liskeard, Cornwall," by W. T. Hancock (Liskeard, 1879). I am also indebted to a London Architect for researches made on the spot a few days ago.

The earliest mention of Liskeard, and incidentally of its Church, is to be found on the margin of an ancient MS. copy of the Gospels, formerly belonging to Bodmin Priory, and now in the British Museum. Here is an entry, made between A.D. 940–1042, relating the liberation of a female serf named Ælgyth, the town being referred to as "Lyscerruyt." There is no evidence that this early Church occupied the site of the present one, but it is obvious that the existing fifteenth-century building replaced one of Norman times, the tower of which still remains. This feature demands particular attention, as it is the earliest part of the Church. The lower stages and the arch leading into the nave are of the late Norman period. The north side shows most of the original work, the west and south being patched up with granite and plaster. The arch into the nave is of Pentnan stone. Externally the tower is divided into four stages: it has an interesting western doorway, with the date 1627 upon it, in which year there are records of certain restorations; on the north side are two circular beaded windows, with the well-known Norman label mould of a slight hollow with a nick in the fillet. In the upper stage are single-light belfry openings, with pointed-arch heads, and the tower is finished with a battlemented parapet and a corbel course under of grotesque heads.

There is preserved in the British Museum a large chart of the south coast of England, temp. Henry VIII., MSS. Cotton, and Liskeard Church is represented thereon with two towers. C. S. Gilbert, in his "Historical Survey of Cornwall," says:—"Liskeard Church is one of the most spacious religious edifices belonging to the county of Cornwall, excepting that of Bodmin. It had two square towers in the time of Henry VIII., one on each side, but it appears that they were both taken down in 1627, and one erected at the west end, which is rather low and crowned with battlements." Mr. C. S. Gilbert is evidently mistaken in supposing that *both* towers were taken down, as the present tower is certainly original Norman work. This view is supported by the fact that the Church at St. Germans, in the early Norman style, was enlarged in later Norman times by the Canons of the Augustinian order. This Church then consisted of a chancel, nave, and two narrow aisles, each of which terminated with a tower. The north aisle was taken down in 1803, but both the towers still remain. These same Canons of St. Germans held the patronage of the vicarage of Liskeard, and as the Church must have been built with their approval, it is probable that the mother Church was taken as a model. Which of the towers was pulled down there appears to be no means of ascertaining, but Mr. Hancock says that after a careful examination of the old chart, and a comparison with the present tower, he is inclined to think that it was the southern one which was removed. During the restorations in 1878–79, a small Norman window was discovered in the eastern wall below the roof, and underneath which the line of the previous roof was distinctly visible. There are similar windows in both towers at St. Germans.

The present Church is of the "Perpendicular" period, and consists of a chancel, nave, north and south aisles, south chancel aisle or lady-chapel, and vestry, and contains many interesting features. The south porch with its three niches and parvise over is very fine. The rood screen was removed in 1793, but the stairs that lead to the rood loft still remain.

The Church was restored in 1878–79, by Mr. Coad, a London Architect, who put new roofs, restored many of the windows, underpinned the arcades, and rebuilt the north-east angle of the north aisle. The total cost of this restoration amounted to some £3,700.

The tower has been patched up from time to time, and there are some bad cracks in it, but there is no reason at all why it should not be restored. I understand that a well-known Church Architect has been consulted, and reports that it could be restored for £800. The committee will not accept his advice, as it prefers a "nice new tower." The plea that the existing tower is in itself an ugly feature attached to the second finest Church in Cornwall, cannot be for a moment sustained. Reference to the illustrations will show that it has a well-proportioned outline, and forms a charmingly picturesque feature in a group of buildings of which the inhabitants of Liskeard may well be proud.

It is difficult to believe that such an act of vandalism as that contemplated by this committee should be allowed, and I sincerely hope that the local antiquarian societies, as well as those in London, will take the matter up and awaken the Liskeard authorities to their responsibilities. The mischief is partly owing, I understand, to a somewhat curious bequest of £1,000, left for the express purpose of rebuilding this tower—if it is not applied to this purpose within a certain time, it goes to the Truro Cathedral Fund. A tower 150 feet high has been mentioned, the present one being only 56 feet high! If the committee could only be induced to spend the money in erecting a detached campanile, arranged so as to group with the rest of the Church, everybody would be satisfied and the old tower saved. There are many English examples of this treatment, such as Chichester, Evesham, West Walton, and others.



LISKEARD CHURCH FROM THE NORTH-EAST.

SLATES AND SLATING.*

BY W. E. BECK.

IN this Paper I shall endeavour to give you as it were an historical discription of the subject. I shall therefore divide my remarks under three heads. In the first place, I shall touch on the geological features of slate rock. I shall then endeavour to give you a description of slate quarries and quarrying, and will conclude with some observations on the practical application of slates with their accessories to buildings. For much of the information contained in the opening chapters of this paper I am indebted to the works of Mr. D. C. Davies, and other well-known authorities. To be as concise in my remarks as possible I shall only deal at length with the rock formations of North Wales, Cumberland, and Westmoreland, as these are the only localities which, in a practical sense, we have to deal with. The slate rock deposits of North Wales extend over a large area, commencing in the neighbourhood of Bangor and running in a south-south-east direction, terminating, as far as good workable stone is concerned, in the vicinity of Port Madoc. They are of sedimentary origin, that is to say, composed of materials which have been disintegrated and washed down from pre-existing rocks and lands. These materials were then carried down to the sea by streams and thence deposited on ocean floors as fine mud. The even deposition of these materials would be affected by currents and tides as well as by storms. The heavy coarse material would be deposited first, near the shores, the finer matter would be carried farther out to sea, and spreading itself over a larger area would be quietly precipitated to the bottom in deeper water. The colour would be influenced by the presence and decomposition of any mineral ore over which such waters flowed. This will explain the reason of the variability in colour, quality, and texture displayed in rock belonging to the same formation. Two quarries may be situated close together, but the rock, in a commercial sense, may be very dissimilar in character. The muddy deposit would then be compressed, hardened, and altered into compact rock. Slate rock is composed of a variety of colours—green, grey, purple, blue, and black. The iron less largely enters and in combination with magnesia gives them their greenish hue. In soft black slates there is a good deal of carbonaceous matter and sulphide of iron in a decomposed state.

The original position of the strata has been horizontal, but by a variety of forces the different beds have been tilted up, and are now lying in various angles approaching the vertical. The cleavage structure of slate rock is perhaps its most remarkable and unique feature. It is supposed to be the result of a combination of intense forces, principally lateral pressure acting at right angles to the planes of cleavage. The direction of the planes of cleavage is independent of that of the rock bed, and occurs at almost all angles to it. This, as I will afterwards show you, causes many difficulties in the quarrying of slate even when the rock is suitable for that purpose. This peculiar cleavage, by enabling the rock to be split into thin plates, gives it its commercial value. When we consider that rock, capable of being split into such thin slates, and able to resist all atmospheric influences from one to two hundred years without showing scarcely any signs of decay, we cannot but imagine what enormous forces nature has at her command to produce such results. The analysis of blue Welsh slates, given by Professor Hall, is as follows:—

Silica	60·50.
Alumina	19·70.
Iron protoxide	7·83.
Lime	1·12.
Magnesia	2·20.
Potash	3·18.
Soda	2·20.
Water	3·30.

The presence of soda and potash in slate deposits is the record of the saltness of those seas wherein they first were bedded. There are of course foreign matters generally deleterious which occur in the stone, iron pyrites being the most common, although a superabundance of carbonate of lime is found in faulty rock.

With regard to the slate deposits of Cumberland and Westmoreland, the foregoing remarks regarding the origin and strata formation of the Welsh beds is in the main applicable to these. These deposits are about 25 miles in length, and average about 13 in breadth, although only a small portion of this is workable rock. Their direction is N.N.W. by S.S.W. and extends from the neighbourhood of Keswick and ending at Furness. This direction is similar to the Welsh deposits, and one rather remarkable coincidence I have noted is that at the southern end of both the Welsh and Westmoreland deposits the stone changes into a dark blue colour, as at the Festiniog quarries in Wales, and the Burlington and other quarries near Furness. The cleavage differs from that of the Welsh rock in being more of a granular than of a leafy nature.

The stone cannot therefore be split into such thin slates as in the case of the Welsh quarries. The cleavage, however, varies a good deal, as some of the rock, especially in the Buttermere district, is capable of being split much thinner than that found in other districts of the same formation. In the Cumberland and Westmoreland rock I have found it particularly free from any foreign material, and with the exception of bands of discolouring matter cropping out here and there, there is not that variability, both in quality and durability, found in the stone of the Welsh formation. The colour of the Westmoreland rock is invariably green of different shades, with the exception of the southern end of the formation, where it changes to shades of dark blue. With this brief description of the geological features of slate rock I will now ask you to follow me while I endeavour to describe to you the chief characteristics of slate quarrying and the production of roofing slates.



SLATERS AT WORK.



VIEW OF QUARRY WORKING.

The early history of slate quarrying is somewhat obscure. It is stated that the earliest indication of the use of slates for covering buildings is found in the twelfth century. The castles of Carnarvon and Conway, which belong to that period, were covered with slates found in their vicinity. The date of the origin of the Penrhyn quarry, which is one of the most ancient, is 1500, and the first distinct mention of it on record appears in an ode by a Welsh bard in 1570.

In these olden times the manner of quarrying was of the most primitive description. Small parts of the rock on the hillsides were quarried by one or two men who paid a small rent for the concession. The slates were rough and heavy, being obtained with little trouble where the slate cropped out. These were carried down in baskets by men, or dragged down by means of sledges. Afterwards ponies were used as a means of transport. Now all this is changed: steam locomotives, tramways, hydraulic machinery, and all scientific appliances possible are now employed in raising the slates from the quarries and getting them down to the places of shipment.

The total output of slates in England and Wales is, I should say, roughly speaking, over half a million tons, worth about two millions sterling. Both Welsh and Westmoreland slates are now being exported to all parts of the world, which, at least, is an indication of the value placed upon them abroad.

For comparative purposes, I shall divide the slate quarries of North Wales into three groups.

In the first group I shall place the Penrhyn and Dinorwic quarries, the slates of which differences in colour are principally caused by the varying proportions of iron contained in their composition. Thus the blue colour of slate is derived from the presence of protoxide of iron. The red and purple varieties take their colour from iron in the form of peroxide. Into the green slates

* A Paper read at a meeting of the Northern Architectural Association at Newcastle-on-Tyne, Dec. 2nd, 1896.

are shipped at Port Penrhyn and Port Dinorwic respectively. Then we have a number of quarries in the second group, situated in the Vale of Nantlle and shipped at Carnarvon. The Festiniog quarries belong to the third group, Port Madoc being the place of shipment. These quarries are not developed and worked by any uniform system. For instance, the Penrhyn and Dinorwic are open quarries worked in galleries on the mountain side. The Nantlle Vale quarries are open and worked below the level of a flat country. The Festiniog are mostly underground quarries, worked by means of shafts and adits, or levels. The rock, where suitable, is drilled and blasted. The workmen then proceed to select from the débris such blocks as they consider will yield the greatest quantity of larger sized slates; the lesser blocks are then selected in sizeable order and afterwards converted into slates of decreasing sizes. This will explain the difficulty of supplying large orders of slates in any given size. Hence the merchant is only able to secure the proportion of the sizes yielded by the rock, which frequently necessitates his having to ask the favour of being allowed to substitute other than the size which may have been specified by the Architect.

With regard to slates which are designated as Seconds. These are not split to order but are made out of blocks, which, by reason of their texture and cleavage, cannot be split so fine as those from which the Best, or thinner, slates are obtained. You will notice by the accompanying illustrations one or two of the various ways in which the different quarries are being worked.



TIPPING WASTE DÉBRIS.

These will, perhaps, give you a better idea than any words of mine can convey. While I am upon the subject, I would take the opportunity to acknowledge my very great indebtedness to Mr. James Townsley, of Hull, the editor of the Slate Trade Gazette; with the exception of two or three, these views have been taken and prepared by himself.

I will now close my paper with the practical side of the subject before us. You will, no doubt, have observed that although there have been many changes and improvements in most or all departments in the building trade, yet the slating of roofs has for the past 30 or 40 years undergone little or no change. From thatch to grey or stone slates and tiles was evidently the first step; then, as railroads were opened out, slates gradually superseded the older methods of roof-covering. From my observation of many of the old buildings in this district, Scotch slates from, probably, Ballhoolish, seem to have been extensively used, and very durable they have been, as even now they appear little the worse for wear.

The grey stone slabs were at first hung on laths by the means of sheep's bones and oak pegs. The joints were filled up with moss, which is probably the origin of pointing the roofs with lime. In the opinion of some, the oak peg employed in primitive times for securing slates is preferable to the present style of fastening by nails. One curious fact I may mention with regard to the labour. There are still living in our district old slaters who distinctly remember having women as labourers, who used to carry the slates on to the roofs, and many are the humorous anecdotes related anent this old custom, which, happily, is a thing of the past. I will now make a few observations on that part of our subject in which you are more particularly interested, that is, slating specifications.

I presume that it will be expected of me to give you my opinion as to what constitutes an ideal specification, and to support the same by quoting my reasons for any arguments I may adduce. So far as I am able I will do this. There are many important factors that should be weighed when preparing a slater's specification.

The specifications have, for many years, been of a stereotyped nature, although latterly I have noted some improvement in this respect. I cannot, however, overlook one important fact in my experience, and that is the great similarity which runs through the specifications for slater's work, no matter by whom drawn, or for what class of work it is intended to apply them. I am convinced that too little attention is paid to the important branch of the building trade which I, as a slating contractor, represent. It is often said that a good foundation and a good roof are essential features of a sound structure, and, if that be so, too much care cannot well be bestowed upon these items. It might be retorted that the slating contractor has also a responsibility in seeing that the public receive from him only that class of work which is of the highest standard of excellence in every department. In this I fully concur, and am persuaded that, with an improved system of contracting, coupled with a more complete knowledge of the slate trade, and with a more punctilious observance of detail, which is to-day conspicuously absent, a much higher standard of excellence in slating work would be attainable.

What is it then that should determine the quality, size, or colour of a slate to be used? No Architect, I take it, would specifiy 9 by 3 joists for every building he had to erect, irrespective of the purpose for which the floors were required, nor in any other important feature of a building would he adopt one uniform rule, without regard to the nature of the structure and its intended use, but in respect to slating how little variety do we meet with?

How little attention appears to be given to discovering the most suitable slate for the particular work in hand? If we take any 50 specifications from north of England offices (say north of the River Humber) we shall find, I venture to say, 48 of the same requiring 16 or 18 by 10 slates, and of Bangor quality, while further south you will find 20 by 10 and larger sizes predominating and of varying qualities. Now after what I have said in regard to the difficulty of securing large consignments of any particular size, and remembering that the causes answerable for such difficulty cannot well be overcome, it will be obvious to you that the slater must, at times, ask permission to substitute other sizes than those specified. Where a slate covering is required, the Architect should consider the pitch it is intended to give the roof, and the length of spars, also whether mitred or close-cut hips are to form any portion of the roof. If the pitch is a good one, say 90° or square pitch, then a 12 by 6 or larger size would be equally safe in turning the wet, and the lap might with safety be reduced.

With a spar of say 25 to 40 feet, a larger slate should be used and of good width, as in consequence of the larger volume of water which must of necessity gather as it nears the eaves, there should be as few joints as possible, and it is a wise precaution to give about one-third of a deep spar, from the eave upwards, an extra lap. In the event of mitreing or close-cut work, it is important that the sides of the roof forming the mitre should be exactly of the same pitch, and here it is very desirable, in order to obtain good workmanship, to specify a narrower slate for the roof in order that the broader slate may be utilized for mitreing; thus, a 16 by 8 slate for the surface slating would give the slating contractor 16 by 9, 10, or 12 with which to form the mitred hips, and in this way narrow or cut slates with only one nail to secure them would be practically unnecessary.

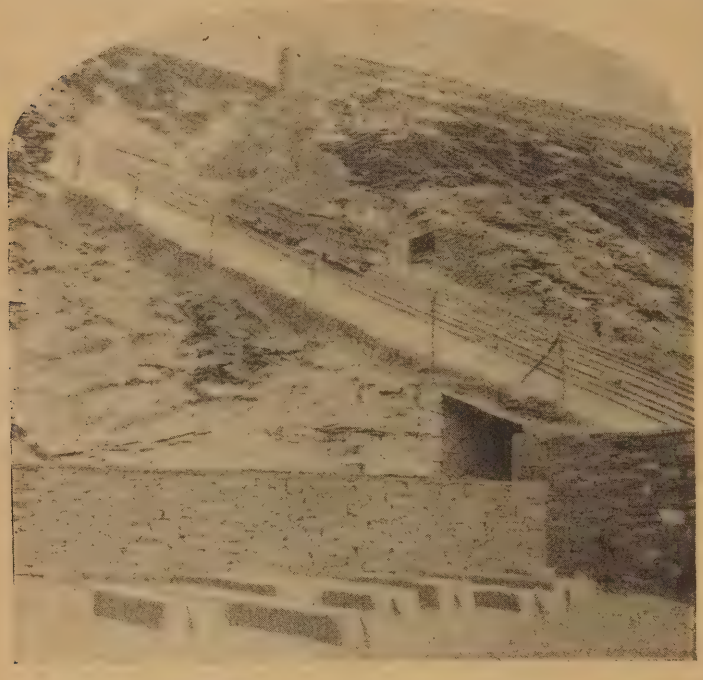
In exposed situations, I would suggest, as an additional precaution, the use of small slate rolls screwed down to the hip rafter and covering the edges of the slates.

I have already said that in almost every north country specification, *i.e.*, from the Humber to the Tyne, Bangor slates, in size 16 by 10 or 18 by 10, are named, and why should this be? The question has many times been put to Architects, but I know of no satisfactory answer having been given.



QUARRY WORKING.

Who then should decide the question as to what is the best quality of slate and the best size to use? The Architect may draw his conclusions from the fact that he has specified the same slate for many years past and never known them to fail, or he may have sought the advice of one in the trade and acted accordingly, but in each case the knowledge is of a local nature and does not go far enough. In the south and east coast of England is adopted, often, the blue Port Madoc slate of much larger size than used in the north, and the Architect and trade alike of the south may claim to be using *the* best slate in the market, while in Lancashire and Scotland, a slate of an entirely different class is in general use, therefore, you might argue, that it is a matter of opinion as to the best slate for use, but I do not consider it to be a matter of opinion myself, but rather does it show that all or any sizes are equally effectual in attaining the object for which they are made, viz., to keep out the wet.



BRINGING SLATES DOWN FROM TOP GALLERY.

As a further argument in favour of a more general adoption of slates of various sizes, let us take a retrospective view and carry our minds back to pre-Welsh slating times, or the times before Welsh slating became so popular as we find it to-day, and we shall find that Westmoreland slates were in demand, and in some districts these slates are much favoured to-day, and with the removal of some of the engineering difficulties in producing this particular stone, and conveying it to the nearest railway station, would follow a reduction in the cost of procuring the slates, and with a corresponding abatement in the quarry price list, there is little doubt but that the Westmoreland slate would be specified more generally than it now is. Westmoreland slates, as you all know, are of promiscuous sizes, scarcely two slates of the same size are to be found on one roof, and yet this class of slating is most effectual, and requires far more skill to lay the same than that of Welsh slating.

Were you to ask me what is the best slate I can possibly use, I should hesitate before giving you my reply, for, apart from my responsibility as a tradesman in appearing prejudiced in favour of any special make, I should in turn have to put a series of questions to you, *e.g.*, what do you mean by the word "*Best*"? What do you mean by the word Seconds? What would you have me understand by the terms—Best Seconds, Redslates, Blue slates, Grey slates, &c.? Upon these apparently simple points there is probably a greater lack of knowledge displayed by Architects in framing their specifications than upon any other part of the slater's business.

When you require that *Best* slates shall be used, do you mean that the slater shall provide the thinnest slate possible, or the thickest? or would you have him supply you with what *he* might consider the best *metal* slate, or do you wish to convey by the word "*best*" that the slate shall be the "best" from an analytical aspect. Whatever you may or may not mean, it does appear to me that the wording of the majority of specifications of to-day leaves much to be desired, if the slater is to place an intelligent construction upon the same. In the slate world a "Best" slate has only reference to its combination of qualities, such as its straightness, uniformity in cleavage, its freeness from spots, &c., and a "second" slate is distinguishable by its thickness and irregular cleavage, and not as many suppose, because it is inferior in metal or lacks points of endurance. Again a "Best" slate is produced by almost every quarry in Wales, but it does not necessarily follow that every quarry produces a "Best" of equal merit. Further, if the definition of the word "Best" is to be left with the slater, I am afraid, that with so many renderings of the word, unpleasantness would often be likely to follow.

Although I have every confidence in the durability of good slates, I think the medium by which they are fastened is not by any means satisfactory. Long before the slate becomes weathered, the nails invariably decay, the slates slide down or are blown off, and are thus often undeservedly condemned as bad.

The nails used in this district are usually of two kinds, copper and zinc. The copper nail is in itself very lasting, but it does not seem to have much affinity for wood. It seems to have a damaging effect on the laths or boards in which it is bedded, and in progress of time becomes loose. The zinc nail, on the other hand, seems to grip the wood very tenaciously, and in country places I am inclined to think it the better nail of the two. In any case, I think there is room for improvement, and a more lasting fastening for slates is very much needed. It does not follow that a leaky roof is the fault of the slating, as the same is often traceable to skylights, lead work, &c., to which proper attention has not been given. I could, if time permitted, have dealt with many other points of interest in connection with slate covering for roofs, such as sinking, felting, bedding in lime, lathing open or space slating, iron roofs, &c., but as these occur under special and peculiar circumstances, I do not feel that I could satisfactorily deal with the same in this paper. In conclusion, as to the future of the slate industry, there is a good deal of reason for believing it is still in its infancy. I, however, believe that with a continuation of the large increase in the building trade in England and other countries, the demand for slates will exceed the supply.

The developments of the different quarries cannot of necessity keep pace with the demand as at present, however much the proprietors may desire to do so.

OPENING OF THE GLASGOW DISTRICT SUBWAY.

ON Monday, the Glasgow District Subway was opened to the public. The subway, which has cost a million and a half sterling to construct, circles Glasgow, taking in both sides of the Clyde, and gives the third underground means of locomotion in the city. It is to all intents and purposes an underground cable railway or tramway, and is unique in respect of the fact that it is the first cable underground railway in the United Kingdom. It is about seven miles in length, and passes twice under the Clyde. It consists of two subways or tunnels, the cars going in different directions, travelling in different tunnels, and joining at each station. It has taken nearly six years to construct. One power station supplies the means of haulage, which is provided by two Carlos's horizontal single-cylinder non-condensing engines, each developing from 1,000 to 1,500 horse-power, with a speed of 55 revolutions per minute. Double sets of steel cables are used. The cars used will each seat forty-two passengers, and resemble tramcars to a certain extent, but are stronger in build, and the platforms of the fifteen stations are all built so as to make them level with the steps of the carriages. All the carriages are lit by electricity, and the ventilation of the tunnels is good. The engineers were Messrs. Simpson and Wilson, of Glasgow.



CARNARVON CASTLE AND SHIPPING WHARF.

THE Plymouth, Stonehouse, and Devonport, and South-Western Junction Railway Company has accepted the tender of A. R. Lethbridge and Son, Plymouth, for the construction of the new station at Tamerton, at a cost of nearly £3,000.

Pictorial Architecture.

BY MR. R. SHEKLETON BALFOUR, A.R.I.B.A.

"That you shall fairly Streets and Buildings trace,
"And all that give distinction to the place,
"It cannot be . . . . . .
"A part I paint; let fancy form the rest."

HERE is the creed of the Artist who honestly takes upon himself the responsibility of depicting Architecture in his pictures, and indeed we cannot over-estimate the advantages Art has gained, that some painters—I dare not say the majority of them—have followed in some degree this precept, and have studied their Architecture conscientiously, and from an *Architectural* and not only from a *pictorial* point of view. I take it, that it will be at once conceded by us all, that when a painter merely suggests Architecture in his pictures, and suggests it correctly, permitting us to fill in its details from our imagination, that his work, or rather the suggestive character of his work, is far more to be appreciated than when he forces upon us compositions full of ill-designed buildings, of impossible construction, inappropriate, ill-proportioned, and frequently—worse than all—badly drawn. But it must not be assumed that a painter can "suggest" his Architecture without a comprehension of his subject, for the Art of true suggestion consists not in incomplete delineation, but in the knowledge of what may be omitted without impairing our understanding of the whole work. The proper *suggestion* then of Architecture rather than its elaborate drawing in detail is entirely fitting, and this custom should rightly be followed by painters; unless indeed his subject be purely an Architectural one (which is but seldom the case). Otherwise, it would be impossible and futile to endeavour to treat his Architecture as subsidiary and accessory to his main theme. Now the treatment of Architecture pictorially may be looked at from two very broadly divergent aspects, viz.:—those of a painter on the one hand, and the Architect on the other, or—what I fear may be regarded as almost synonymous—the pictorial point of view, and the Architectural point of view. And yet, this should not be so, for each branch of Art demands for its perfection, reciprocal obligations and commensurate teaching. There are, I think, but comparatively few painters for whom Architecture ranks as more than a subsidiary element in their compositions, for with the evolution of pseudo-impressionism, now so popular with a public always ready to grasp at something new, the depiction of Architecture can but become more vague, due to the inadaptability of the line, the pure curve and the symmetrical form, to the nebulous and indefinite focus of the pictures of the most modern schools. But even here the Artist has possibilities—would that they were more frequently recognised—as a rule beyond the reach of the Architect, except perhaps when he may have the satisfaction of contemplating his buildings enfolded in the seductive embrace of a London fog, which concedes to our great edifices such mysterious magnificence, and reveals to each individual picturesque imagination such possibilities of things great and beautiful, and conceals, at the same time, bad proportion and poor detail, the sordid horrors of stackpipes and ventilators, and all the other unsightly objects of nineteenth-century utilitarian civilization.

THE EARLY DEPICTION OF ARCHITECTURE IN PAINTING CHARACTERIZED BY FAITHFUL MINUTENESS.

It is no new-fangled theory that discrimination is necessary for the proper rendering of Architecture pictorially, and there is no occasion for us to doubt of this fact if we think for a moment of its early forms in the hieroglyphical palimpsests of almost prehistoric times, in the Grecian frescoes of Pompeii and the later decorative paintings of ancient Rome. Let us consider the attentive care and study bestowed by the early Italian painters on their contemporary Architecture and its collaborative Arts. Observe how it takes its place as a necessary essential for the perfecting of their great works, just in the same way as do their conventional landscapes, formal trees, and delicate birds and flowers; and then leap over the artistic hills and valleys of intervening centuries. Compare all this with their modern equivalents. Conjure up in your minds visions of all the photographer's accessories, the appalling complexities of the colonnaded background, the delights of the paste-board balustrade, the noble realism of the cork-built rockery and rustic arbor, the grass mat, the artificial flowers, and all the other splendours with which the photographer used and even still continues to surround us, in order to produce what he considers a work of Art. Think of the unrivalled opportunities bestowed upon these so-called photographic Artists by an intelligent public, delighting to behold their features and forms sanctified and perpetuated in the fleeting idiosyncrasies of a passing fashion of dress, and callous to the hilarious ridicule with which they compel their descendants to hallow and honour their memories. But my subject is Pictorial Architecture. As I have said, we find this conscientious regard for the faithful depiction of Architecture in all ages and on all occasions, for we note its naïve fidelity on Oriental plate and vase, and it evinces itself with a subdued and reverent persistency on the panels and triptychs of Fra Angelico, of Cimabue, of Perugino, and Boticelli, and their disciples.

FROM THE RENASCENCE ONWARDS.

Then came the renascence, unfettering not only Architecture, but all the kindred Arts, from the thraldom of a mediæval sentimentalism, revealing interminable vistas, religious and secular, to the master-minds of the painters to whom its advent was so largely due. The sentient rays of the great revival spread to countries far and near, developing in each a *môtif* characteristic of its inhabitants; the superbly dignified portraiture of a Velasquez in Spain, on the one hand, or the quaint *genre* work of a Wouvermann in the Netherlands, on the other. But let us follow the existent sympathy between the Architectural reality and its semblance on canvas, still continuing onward. Do we not all know well, from our studies of Architectural history, of the gradual increasing love of refinement, of proportion and detail, and the loss of robustness, of mass and dignity, and light and shade? Do we not know, too, how these sublime qualities were usurped in course of time by the shallow pilaster and the meagre cornices of the later developments, and compare, as a synthetic corollary, the grand treatment on canvas of the Architectural compositions of Raphael, of Tintoretto, or Michael Angelo, and mark, through its many phases, the gradual decline into the dreary efforts at exactitude and photographic accuracy practised by Canaletto and his many followers, in that innumerable series of views of Church and palace, all sharply outlined by their fenestration and hard wiry cornices, to the exclusion of all depth, light, shade, and atmosphere? It is indeed unfortunate that a painter of such great abilities, and so cognisant of the legitimate form and proper disposition of Architecture, should be overwhelmed by the persistency of his definition and pictorial exactness, yet, throughout his entire career, so confident of his manner of drawing and colouring that his works need no catalogue number to attribute them to their true author.

TURNER, THE TRUE IDEALIST.

We have no time to review the works of so many masters, but we are impelled to pause to think of that great painter who was the idealistic poet of pictorial Architecture. It was Turner who could see the Architect's work as he longs to behold it himself; it was he who could transpose the ethereal visions of his brain to comparative permanency, through the medium of his inspired hand, and who could, while retaining in his work a sufficiency of that regard of absolute accuracy, blend the most uncompromising features into a group of incomparable beauty. It was Turner who could also bring to his aid all the most beautiful phenomena of nature, the cumulus and the cirrus, the rainbow and the shower, the sunbeam and the mist, for the perfect compassing of his delightful works. Truly, Turner revealed his Architecture as he beheld it, with mystery, with truth, and with idealized beauty, while Canaletto gave us instead the mechanical Architecture of the drawing-board, the set-square and the compass: *he* presents it to us as he knew it to be.

THE WORK OF CONTEMPORARY PAINTERS.

In the work of contemporary Artists, it is not a far cry to seek subjects for criticism, for do not the Academy, and the other yearly exhibitions, the modern collections at South Kensington or Bethnal Green, give us, as a rule, more subject for regret than approval? Here we see the apathy of some painters whom we are accustomed to hear called Artists, for the greatest of all Arts, and here too, in some cases, we Architects will find much to learn from compeers in a kindred branch of Art, who work untrammelled by the limitations of planning and those numerous restrictions imposed on the Architect in actual work, who contrive in their pictures those beautiful schemes of colour and decorations, and give us those truer principles of proportion which we can never gain from dead sheets of elevations and sections. For it is furniture and those many other touches needful to render complete the habitations where mankind dwells, which alone can demonstrate these principles, and we Architects find it very difficult to grasp them. And how pleasant it is to us when we find a painter who takes some particular period of work and makes it his own! How glad we are of the classical compositions of Alma Tadema, or the charming Dutch scenes painted by his wife; the late French interiors, with their tones of pale greens and yellows, salmon and brown, which so well become an Orchardson; or those elegant Georgian rooms and old-world gardens with all their courtly accompaniments of a Dendy Sadler. And when, as sometimes happens, we are called on to design things other than what may be legitimately called "Architecture," may we not gain the greatest assistance in our work from these men, whom we know have spared no pains to make their pictures correct as well as complete? If, therefore, our painters would only give a little of their time to acquiring even a rudimentary knowledge of the principles governing Architecture: if only each would cultivate, if he will, an individual eclecticism from the great masters of our Art, how much mutual assistance we should have in furthering that one great ultimate object for which we all should be striving—the making of our life more good, more true, and more noble, the restoring in some degree to nature the beauties of which our civilisation has deprived her, not indeed her own, but the best our feeble intellects are capable of! And the difficulties which the Artist has to encounter in mastering the elementary doctrines of Architecture are but trifling when compared with the pleasure and profit which are ready to reward him for his pains; a little thought, a little searching for the reasons of the why and wherefore of things, a little more attention and consideration of the construction of the buildings he sees around and the house in which he lives, the easy familiarity to be gained with the best Architecture which countless books place now-a-days within the grasp of all. Why does he deck his studio with the nick-nacks and trophies of his travels in distant lands, and yet care not for the Architecture of his house, or for the design of its fittings and furniture? If this habit of carelessness obtains with painters, then they are not Artists, for if Artists, then they will adore all Art; there is but one shrine at which they worship, otherwise they will not be true to their calling or themselves, and, if not true to themselves, their work will not live, for do we not all know the precept: "Wheresoever the search after truth begins, there life begins; wheresover that search ceases, there life ceases"? I know it is true that the Artist has not the same inducements to study the correctness of his Architecture as he has the anatomy of his figures, the lines of his draperies, the atmosphere of his distance, the breed of his sheep and cattle, or the species of his trees. The public profess to know what is correct and proper in these matters, and hesitates not to criticise the painter who transgresses on their credulity, or infringes the limits of their knowledge of these things; but it cares not, it passes by with ignorant indifference, it raises no protest against the Architectural solecisms in which some painters revel, and of which the veriest tyro in our Architectural Classes of Design would scorn to be guilty, for the public neither knows or cares for these things.

THE BENEFICIAL INFLUENCE OF THE PRE-RAPHAELISM OF THE NEW RENASCENCE.

But the public is arousing itself by slow degrees; the dawning light of our new Renascence is filtering itself gradually into their gloomy abodes, our schools of Art, our needlework guilds, our exhibitions of Arts and crafts, all traceable, indirectly perhaps, but still traceable to that great historic Oxford movement of half a century ago, whose consequences were diffused infinitely more widely than its most sanguine leaders could have anticipated

in other than purely religious circles. Our whole Artistic life has been metamorphosed by it. First, there was the pause; the Artist stood aghast at what had formerly contented him. Then came the flight back to the early springs of pure Art, and the endeavour for honest simplicity and truth and conscientious work, led by a Rosetti, a Morris, a Burne-Jones, a Ruskin, and a band of other disciples, whose numbers are always increasing. Still, we are but started, retarded by careless money-grabbers, who advertise themselves in our exhibition galleries with paintings which appeal not to our highest conception of the divine and beautiful and decorative (for it is vanity to call anything which is not decorative a "picture," since the reason for which we have pictures in our houses is to decorate them) but rather to the less worthy feelings. For it is astonishment which is aroused by the dramatic intensity of their subjects, or the exciting incidents they depict, the daring scheme of colour or some *tour de force* of technique, or the depicting of motion or other effect of realism, which leads our thought away to the flimsy contrivances of the scene-painter or the peep-show work of the cheap illustrator. And that is the true reason why those among us who are striving to realize the doctrines which great Art ever aims at inculcating, cannot be brought to see any beauties in the canvases of those men who endeavour to rival the coloured photograph in the realism of nature, adapted to one plane. Are we not repelled by the imitation *in media*, entirely inadequate, of the sunset-sky, or the foam-flecked rocks of the wind-driven sea, and such-like efforts on the part of a unit of puny humanity to emulate inimitable nature within the margins of a gilt frame, lacking, as it must, the roar of the ocean, the twitter of the swallow, or the perfume of the fields, and all that infinity of resources with which nature appeals to each of our senses, the music, in short, of Pan's pipes, combining all to make each scene complete? Yet this coloured landscape-photography, and this rendering of exciting scenes or display of astounding technique, is the type of work which the ordinary visitor to our exhibitions prefers, for it is ever the full-flavoured dish which appeals to the uneducated palate. This, also, is why the dramatic and realistic music of Handel's oratorios draws crowded audiences, while the great works of Beethoven, or Chopin, or Wagner, are only appreciated by a small section of mankind. For the same reason the majority of visitors to Italy really prefer the theatrical cenotaphs of the new cemetery at Genoa to the noble monuments of the ancient Pisa Campo Santo. My argument holds good, too, in all branches of Art, for it is the same in poetry and literature. The mission of the painter is a great and responsible one, for it is his to receive all these impressions so bountifully bestowed upon his brain. He is the medium between mankind and nature, it is *his* to interpret this combined entirety, with all the power of idealism which providence has blessed him with; and if he gives us as it were himself, in his pictures, if he paints with honesty of purpose and with sincerity of intention, then, indeed, his works are worth possessing. But when he paints the works accomplished by *man*, the case is modified and realism is more legitimate, for the fabrics raised by the hand of man are comprehensible to his intellect, for here there is no struggle of the finite against the infinite. And so it seems to me, the painter must be differently disposed when he gives us his translations to canvas of the works of God, which it is impossible for him to fully realize, to the occasions when he presents his rendering of the works of his fellow-creatures, which he can understand. And this is why his Architecture should be represented with a practical knowledge of the principles which govern it, just as the portrait painter must be educated in the limitations of his draperies.

THE PAINTER'S VIEW AS TO ARCHITECTS' DRAWINGS.

"But," says the painter (and he says it truly), "why do you Architects, who give us views of your works as we shall see them, why do you not study even the most rudimentary facts of nature? Surely, if you think it is desirable we should know something of your Architecture—which is only, after all, the outcome of poor humanity's requirements—why don't you in turn study infinite nature, which you fondly imagine you are treating as an accessory, as a background on which to exhibit in raw perspective, frequently from impossible points of view, the glories of your designs? That the buildings themselves may be correctly drawn and the shadows legitimately traced upon them by scientific rules, is the best that can be said of them, almost without exception. Where is the effect that atmosphere would give? Where is that *chiaroscuro*, that mystery, without which no picture exists? There is but one mystery about your work, and that is the interpretation of the wooden dolls you call figures, and the Noah's Ark structures you call trees! Why do you not treat them after the manner of the theatrical manager in olden times, whose resources in stage propertes were limited, by substituting on a label the notice 'A tree here,' 'A figure here,' or 'A waggon there?' It would be less ludicrous, and would tend to preserve the dignity of your Art." This is all very true, but let the painter remember that the drawing is for the Architect only the *means* to the end; let him go to the building itself before he opens his mouth to criticize. We say your canvas is the definite and ultimate motive for which you have contended. Our trees and figures will not be as we have shown them in our drawings, that we know. Nature will place the figures and design the trees for us, but if your pictures have their Architecture wrong nothing will alter *that*, it will always be a source of discontent wherever they hang, and they cannot be tolerated. No painter, I venture to think, who has even the slightest information of the history of Architectural draughtsmanship, will be inclined to cavil if I say it has improved in an astonishing degree in the last quarter of a century, and it is not, I think, wholly confined to the mere depiction of our buildings pure and simple, though we can never hope to become equally proficient with the painter who devotes his life to the study of visible creation. Still we shall all long to improve our feeble attempts to catch the truths of nature, and so add immeasurably to the value of our Architectural drawings. Our opportunities are limited, the task is hard, our hands are cramped by the compass and the straight-edge; we have been trained to draw in wire-like lines with pencils whose qualities are usually estimated by their ability to retain for the longest time a fine point; our eyesight (unless destroyed by over-strain) is microscopic, and is never satisfied unless the uttermost detail is indicated on our drawings, no matter of what scale. Why *must* we go out to sketch, armed with our opera-glasses wherewith to count the dentils in shadow of the cornice, or to search for the exact form of the patera in the gloomy hollows of the Gothic archmould? Why cannot we bring ourselves to draw what we really see? Why are we never satisfied till we have drawn all that is really there? It is because we so continually lose ourselves in trivial details and are oblivious to all the power and dignity of mass and outline, that our Architecture so often savours more of the cabinet-maker's bench than the Architect's studio. Now the sketching of mass and outline has been almost entirely neglected by Architects, and yet its value cannot be over-estimated in our training, for the value of our detailed sketches should consist in indicating the nature of our measured drawings in perspective.

A PLEA FOR DRAWING FROM LIFE.

Let us therefore extend our radius of subjects, let us in the small amount of our leisure moments, cast to the winds those hard pencils, those scales, squares or compasses, let us take our largest sheets of paper, our chalks or charcoals, and draw, as large as we can, things as we see them, not confining our efforts to Architecture alone. Let us spend our summer days in the sunny meadows wrestling with the forms of trees and flowers and cattle and birds, or else with the craggy masses of the mountain, or with the subtle curves of the waves breaking on the sea-shore. Let us pass our winter evenings drawing from the life at our excellent schools, or in modelling in wax or in clay, or in beating and twisting into delicious curves our wrought-iron, and then, perchance, shall come again an insight into a knowledge, more wide and pleasurable, more useful and appreciative of qualities which are essential for the proper treatment of pictorial Architecture. And for the delineation of our buildings themselves, how much we shall acquire from this wider field of study! How difficult it is for the beginner to choose the right position for his subject. See how carefully and laboriously he tries to draw each line correctly, and having done so, how unsatisfactory appears the result. Why is this? Is it not because he forgets the entirety of his subject, he is dominated by each detail in turn? Let me quote from the preface of "Modern Painters":—"The Artist," says Ruskin, "frequently separates, as chief enemies, the details and the whole, which an Artist cannot be great unless he reconciles; and because details alone, and unreferred to a final purpose, are the sign of a tyro's work, he loses sight of the remoter truth, that details, perfect in unity and contributing to a final purpose, are the sign of the production of a consummate master." Yet for the satisfactory accomplishment of this work, he durst not be careless in the indicating of his detail. He must gain that intuitive knowledge where to place the sharp line as well as the soft broad stroke; he must be on his guard against the indiscriminate use, when drawing new work as well as old, of the blandishments of pernicious insincerity, so easily assimilated, of those little dots and scratches, wavy and broken lines, and the hundred other tricks which are adopted to produce effect at the expense of truth. True, sometimes, we are justified in the use of some of these devices, as, for instance, when we draw old work, for time has produced these effects for us, and we should not be true to smooth them out. But these broken stones and wavy string-courses and broken plaster, do not occur in new work, and they are false, for have we not all experienced the disappointment of being brought face to face with the original of one of these misleading drawings which we so frequently see? And we are impelled to draw with truth, or else of what advantage is there to us in that inestimable gift which Providence has bestowed upon us - the means of seeing the effect of our buildings before they become realities? Since we have lost the art of building successfully by the haphazard methods of mediæval times, how we must nurture this gift, which, in countless instances, has proved our salvation!

A PARALLEL OF THE PAINTER'S WORK AND THE ARCHITECT'S WORK.

Just for the moment let us compare our work with that of the painter. See with what ease he may modify, alter, amplify or simplify each portion of his composition; consider the facility with which he may retune the discordant note in form or colour which was not obvious till the whole chord was struck. Or, when he feels within him that his completed work is unsatisfactory, he may still efface its surface and begin again, or should his conscience tell him that his conception is unable to soar to the sublime altitude of his subject, or that his intellect is unable to grasp it in ideal beauty, when he knows that having done his uttermost, and been vanquished, he may still rend his canvas in twain, and burn its fragments before the world knows of his failure, and loses confidence in his abilities, and, he will emerge duly chastened in spirit, perchance, to a fresh start, on a theme less ambitious perhaps, and more within the horizon of his imagination, of which, when accomplished, mankind will say—"This is the greatest work he has accomplished!" But how different with the Architect, whose scope so mightily eclipses that of the painter, in that his work is a necessity for our welfare, while it would be possible to dispense with pictures, and music and poetry, though how rugged, to be sure, would our existence be without them. Our Architecture is almost as essential to us as our food. When we take upon ourselves the responsibility of using the most durable and everlasting materials which this globe contains, when we cement them together with the most tenacious compounds at our disposal, and use the most powerful agents science has given us the use of, to draw and bind our structures into a homogeneous mass, when we make it proof against fire, and cover it to prevent the disintegrating forces of nature, before we thus strive for its permanency, let us consider well, for fear that even before our work is complete, and before it be unveiled from its network of scaffolding, lest we may afterwards long to alter or modify its design, or even obliterate it altogether. But no—once there, it must remain, we must see it each day we live, and hear the comments of a heartless community, always ready to criticize, or the still more poignant darts of our brothers in our profession. We may even lose thus the esteem of our clients, and we may not be given another chance of repairing our errors. Thus it is, that whether we be painters, treating of impressions, or Architects, treating of facts, the faithful expression of our Architecture, pictorially,

is of value to our work beyond price, therefore let us cherish it, let us never slur over it, or think it not worth while. Our buildings or our pictures, which are the lasting records of our time, which mark the epoch of our lives and manners, which illustrate our national history, demand that, as Architects, we raise no edifice without the most careful previous consideration and the drawing of its mass and details, and, as painters, that you acquire that sufficient knowledge of Architecture which will enable you to escape those treacherous pitfalls of Architectural solecism, which continually destroy the lasting worth of your paintings. For it is on this true and faithful expression of your work that your own reputation will depend, and, more than all, it is on this also that your country's reputation depends; for each individual work helps to make or mar the place your country takes in the record of the world's Art.

[For want of space the discussion in which Mr. Joseph Pennell, Mr. Brewer, and Mr. C. G. Mallows took part is held over until next week.–Ed.]

THE INSTITUTE OF BUILDERS AND THE NEW CONTRACT.

WE have received from the Secretary of this Institute a circular letter, as follows:—"During the last few months, several inquiries have been made at this Institute with reference to the new form of contract recently issued by the Royal Institute of British Architects, and I am directed to give you the following information on the subject. In the year 1890 the Royal Institute of British Architects desired to arrange with this Institute a new form of contract, to supersede the form settled between the Architects and builders in 1871, and which has since that time been in constant use. The builders were not anxious for any alteration in the old form, as it was well understood by both Architects and builders, but at the instance of the Architects they discussed the form of contract submitted to them, and the negotiations extended over a period of some four or five years. This Institute, with a desire to meet the views of the Architects, reluctantly assented to adopt the phraseology upon which the Architects laid great stress in various portions of the contract, expressly on the condition that the arbitration clause should be framed in a mode approved by this Institute; and on this footing the negotiations proceeded. When the time came for settling the arbitration clause, this Institute as advised by Sir Richard Webster and Mr. A. A. Hudson, that the form of arbitration clause which the Architects after long discussion required the builders to accept, would not give the builders the protection they required, and that they should, therefore, decline to adopt it. The Architects, however, were equally determined not to adopt the arbitration clause in the form the builders were advised was necessary for their protection, and thereupon the negotiations were broken off. The Architects have since issued a new form of contract without the approval of the Institute of Builders, and which, indeed, the builders are advised, if used at all, should only be with an arbitration clause in the form the builders were willing to agree to. This Institute, therefore, repeats the advice and recommendation given after the negotiations had broken off in 1895, viz., that the old form of conditions agreed between the Architects and builders, in 1871, and which are so well known in the trade, should be used as the standard form is not recommended. The use of the new form of contract put forward by the Architects, except with the arbitration clause in the form the builders are advised is effectual."

THERE appears to be an opening for builders at Kingsteignton. At last week's meeting of the Parish Council, Mr. Freestone, on behalf of the committee appointed to make inquiry about the erection of workmen's dwellings, presented a report in which it was stated that the committee most emphatically recognised the great need there was for additional cottage accommodation at Kingsteignton. The committee believed that a limited number of houses built in Kingsteignton would remunerate the builder as well as supply a great want of the working people. If considered that the houses might be built and offered for sale to the tenants, some of whom would doubtless purchase their houses if facilities were offered for their so doing.

Bricks and Mortar.

EFFINGHAM HOUSE, ARUNDEL STREET,
December 23rd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

THE proposed Watford Railway has excited great opposition from the Artistic colony of Bushey. Professor Herkomer was sounded on the point the other day, and said, "If a railway is put entirely out of sight of my house it cannot injure me, and it will not injure my college." The opposition to the railway going through Bushey cost the Professor a large sum of money. "My presence here," he said, "means £10,000 a-year to the place, and the rural aspect would be entirely changed." So far as communication with London is concerned, the Professor added, the only difficulty was getting to Bushey Heath or from Bushey to the station, and soon, he thought, there would be motor-cars running down to join the trains, and this at cheap rates. As an Artist, of course, and as one whose particular work has undoubtedly been "the making of Bushey," Professor Herkomer would view with displeasure the close approach of a railway, and, as he remarked to his interviewer, "You ruin too much in order to produce nothing. The ruin to the rural aspect would be great, whatever the other side has to say. I am not vindictive; I want to save myself and my colony, because it is to me a vital thing. It is no profit to me—the students are children to me, and I feel it greatly. It would be done by people who do not consider others sufficiently. I do not want to interfere with trade, but I don't want my life interfered with. I do not think there is any village like Bushey, and I have said what my presence means to it."

MR. GEORGE C. HAITÉ has accepted the office of President of the Nicholson Institute at Leek, and succeeds Sir Owen Roberts, M.A., D.C.L. Mr. Haité will deliver his presidential address to the students of the School of Art, Science, and Technology in January, and will also distribute the prizes and certificates.

AN interesting enterprise has been started at Birkenhead by Mr. Harold Rathbone, a well-known Artist, in conjunction with Mr. Conrad Dressler and others, for the production of high-class pottery, adapted both for ordinary use and for decorative purposes, both external and internal. The company, directed by Mr. Rathbone, took as its model the famous fifteenth-century work of Donatello and of Luca Della Robbia, and in order to emphasize its allegiance to this particular school it adopted the designation of the Della Robbia Company for its Artistic and its trade name. Examples of its productions have been shown at the Arts and Crafts and other exhibitions, where they received high commendation, amongst others, from the late Lord Leighton, Mr. Holman Hunt, and Mr. Walter Crane. The new industry should have an important future before it, the more so as Mr. Rathbone and his associates are creating a school of young designers and potters, many of whom show a high degree of inventive faculty and technical skill. One commendable feature of the display is that each work bears the signature of the designer.

GROOTE SCHUUR, the country seat of Mr. Cecil Rhodes, was destroyed by fire last week. The house is situated at Rondebosch, seven miles from Capetown, and the building was an old Dutch structure, one of the finest specimens in South Africa, with a picturesque thatched roof, and surrounded by large grounds, one portion of which was devoted to a zoological garden. Happily, the buildings in that part of the ground are uninjured. It appears that some books, papers, and curios were saved, but many priceless relics were destroyed, including the Zimbabye collection. Several of the rooms were panelled from floor to ceiling in plain teak panels. Antique Dutch furniture, in excellent preservation, was obtained for the various rooms. Rich old tapestries, old prints, and old paintings, including a Sir Joshua Reynolds and an early view of Capetown and Table Mountain, attributed to Richard Wilson, R.A., decorated the walls. Mr. Rhodes's library had about 2,000 volumes, said to be mainly historical works and translations from the classics. But it was chiefly remarkable for its collection of curios. Lobengula's rifle, bearing the arms of the South African Government, the famous silver elephant found among the ashes of Bulawayo, the Matabele chief's drinking-cup (which held two quarts), and the royal elephant seal, were among these curiosities. The treasures found in the Zimbabye ruins were also kept in this library—a wooden bowl (with carvings representing the signs of the Zodiac and the sacred crocodile), a Roman coin (Emperor Antoninus Pius), blue pottery, and parts of a slave-chain.

AN account was recently given by Mr. George E. R. Thomas before the Western Society of Engineers (Chicago), of putting down a shaft at the Chapin Mines, Iron Mountain, Michigan, U.S.A., by the freezing method. This is the only instance in America of a shaft being lowered by the Poetsch system, although in Europe the system has been applied in several cases. By this method, one can defy the flowing quicksand, water-bearing materials, or even water, and hold it absolutely rigid until such time as the work is completed. Ten-inch pipes were, in this case, lowered to the depth of 104 feet, so as to form a circle proportionate to the size of the shaft, by using a jet of water under high-pressure on the inside of the pipe. The lower end of each pipe was toothed with steel, like a trepanning instrument, and the upper end attached to a toothed wheel, into which two pinions were geared and driven by a steam-engine. When these pipes were in position, a smaller pipe, 8 inches in diameter, was placed within the larger pipe, which was then withdrawn, and again another pipe, 1½ inches in diameter, open at the bottom, was placed inside the 8-inch pipe for introducing the circulating freezing fluid, chloride of calcium in solution at a temperature of —35° Cent. or—31° Fahr. This fluid was cooled by means of a Linde refrigerator, in which anhydrous ammonia was employed, and was then forced by a circulating pump into the 1½-inch pipe, out of which it flowed into the 8-inch pipe, whence it rose to the cooling tank. Fifteen thousand gallons of this fluid were circulated through the entire system every 33 minutes, the flow being directed into the standpipes by a system of valves. When the frozen portion of the ground between the pipes had become frozen together into a solid mass, it took the form of a cone, owing to the fact that the fluid on emerging from the 1½-inch pipe was of a lower temperature than it was at the surface of the ground, and after it had done its work. When the work was completed the ground took several weeks to thaw and to return to its normal temperature.

UNDER the auspices of the Eastbourne Technical Instruction Committee, the first of a series of lectures on Domestic Architecture was recently delivered at the Town Hall, the lecturer being Mr. F. R. Farrow. The lecture was of a popular character, elementary enough to be easily appreciated, and yet sufficiently technical to make the observations of value to an advanced student of the science. Domestic Architecture, was, Mr. Farrow remarked, a subject in which every one who had to live in or have anything to do with a house, was interested. The special idiosyncrasies and tastes of the occupier should be studied, and for that reason the ready-made house was necessarily a sort of compromise, because it was impossible in such a house to do this thoroughly. It was therefore better that they should own the house they lived in and, if possible, have their house built to order under the advice of an Architect, for in that way they could more readily insure that their homes would be comfortable and beautiful. With many so cheap as at present there was scarcely a safer or

more remunerative investment than becoming the owner of one's house, the risk in such a case being practically reduced to a minimum. Proceeding, he went on to speak in general terms as to the position of a house with respect to the important consideration of aspect, which had to do with the weather and the light, and of the prospect, which was solely a question of view. Having regard to the invariable practice of having windows in the back and front in town houses, he suggested that the best aspect was west and east instead of south and north. With regard to the apartments of the house, he especially emphasized the value of a spacious and decorated entrance hall. The characteristics of the dining-room, drawing-room, boudoir, the morning-room, library, and bedrooms were also dealt with in detail, the object of the observations on each of the apartments being to point out the arrangements that were most satisfactory as to effect and convenience for the ordinary life of the home as well as for the purposes of entertainment.

UP to the present no one has been able to dispute the boast of the proprietor of the "Fighting Cocks," at St. Albans, who claims that his is the oldest inhabited house in England. The "Fighting Cocks" is a building chiefly octagonal, and the rest of an indescribable shape. Inside it is a ramshackle collection of rooms carefully unadapted to the purposes for which they are used. The upper part is wooden and reasonably modern, the oak joists, for instance, not being much more than six centuries old. Its claim to age rests chiefly on the foundations, which are part of a bastion which once formed the corner of the Abbey orchard, and in this bastion is the cellar, said to be unequalled in St. Albans for keeping qualities. As the Abbey wall was commenced about 1080, this would give the "Fighting Cocks" the respectable antiquity of 900 years or so. But there is a possibility, almost a probability, of greater antiquity. Just in front of the inn, only now hidden by one of the very few silk mills left in England, flows the Ver, the river that gave its name to Verulamium, once the Roman capital of England, and by the side of the mill is the old ford, now spanned by a footbridge. Just across this ford are the remains of the walls of the Roman camp, fast disappearing through the fondness of excursionists for brick and flint relics. The walls of the "Fighting Cocks" are built of brick and flint derived from the Roman camp. But that says little, for having so glorious a mine of building material free, gratis, and for nothing, the mediæval inhabitants of St. Albans, not having the fear of the Act for the Preservation of Ancient Monuments before their eyes, stole all they could carry away. Consequently Roman tiles crop up in every direction except in and about the camp.

A WESLEYAN committee has been formed to commemorate the sixtieth year of the Queen's reign by raising a fund of £10,000 to assist in the erection and maintenance of soldiers' and sailors' homes in this country and in various parts of the Empire. There are already twenty-eight such homes held on trust or by special regulations for the use of all members of Her Majesty's sea and land forces, irrespective of religious denomination. These have been acquired at a cost of £34,024, and maintained at an annual expenditure of over £12,000. It is proposed by the new effort further to extend them, and remove any pressing indebtedness on the premises already in use. Particular attention will be given to the Soldiers' Home in Buckingham Palace Road.

ST. MARY'S CHURCH is to be excluded from the Bill to be promoted in the forthcoming session of Parliament, to obtain power to remove certain Churches in the centre of the city, with a view to providing for the wants of more densely populated districts in other parts of the city. The Commission recommended, after careful consideration, the removal of Christ Church, St. Mary's, and St. Peter's. St. Mary's, we believe, was included with a certain amount of reluctance, but was not of any very great value for the purpose of Church extension. A new roof for the Church will be an absolute necessity at a very early date, and unless this and other repairs and renovations are carried out the question of the removal of the Church will settle itself. Something like £2,000 or £2,500 is required. The parishioners are willing to do what they can, but that cannot be much. Apart from the Church, one of the schools will have to be closed at an early date, as the building has been condemned by the Education Department. We may venture to express the hope that those who have been so anxious for the retention of St. Mary's, will now come forward and assist in meeting the very heavy expenses above referred to, which will have to be met in consequence of the decision to leave the Church in its present position.

AT a recent meeting of the Society of Antiquaries of Scotland, the first paper was a notice by Mr. J. W. Morkill, M.A., of a human hand and forearm pierced with nail holes, and a basket-hilted sword, formerly preserved in the family of Graham of Woodhall, Yorkshire, and considered as relics of the famous Marquis of Montrose. The second paper was a notice of a sculptured cross, with the crucifix on the obverse, recently discovered at Lamlash, Arran. This monolith of white sandstone, six feet in length, was discovered in digging a grave near the east end of the old Church, in the burying-ground at Lamlash. It shows a convex surface on front and back, with square-cut sides, and bears on the obverse a representation of the crucifixion in high relief, with a star above each of the arms of the crucified figure. The lower part of the figure is not seen, but the upper part seems to emerge from a cup-shaped calix, or blossom, on the summit of a stalk which undulates from the base of the shaft, somewhat resembling a Jesse tree. At the lower part is the figure of a nude child, from which the stem seems to rise. The reverse bears a cross with an open square head, enclosing a diamond-shaped form, in the centre of which is a star. The square has crosses projecting from the middle of the sides, and *fleurs-de-lis* at the corners. Up one side of the shaft is a wavy scroll of foliageous ornament. The sides are also sculptured with foliageous scrolls. A drawing of this curious cross, by Mr. T. Smellie, Architect, was exhibited. In the third paper Dr. Joseph Anderson communicated notices of some recently discovered inscribed and sculptured stones. The first was a cross bearing a Runic inscription, discovered near the east end of the old Church of St. Peter's, in Thurso, which was sent for exhibition by the directors of the Thurso Museum. It is interesting as being the only Runic inscription hitherto discovered on the northern mainland within the old Norse earldom of Caithness. The second was an incised slab, with symbols and an Ogham inscription, found on the links of the Bay of Keiss, Caithness, and preserved at Keiss Castle by Mr. Barry, M.P. It bears on the upper part the symbol of the fish, beneath it an ornamented symbol like a book-cover, and at one side an Ogham inscription consisting of a few letters only, which Lord Southesk and Rev. Dr. Joass agree in reading as probably a proper name, but the concluding part of the inscription is wanting. The third was a portion of a sculptured slab with part of an ornamented cross-shaft found in digging a grave in the churchyard of Murroes, Forfarshire. It bears an elaborately executed panel of interlaced work of serpents in relief and a figure of an animal such as usually appears on the sculptured stones of Scotland.

AT a meeting of Truro Cathedral Committee recently held at Truro, the Bishop said it would be remembered that some time ago he was offered £1,000, on condition that the building of the Cathedral was at once commenced, but he feared this had been lost owing to the delay. The Earl of Mount Edgcumbe had promised £1,000, Lord Robartes would give £2,000—spread over three years. Mr. J. L. Pearson, the Cathedral Architect, sent the following estimate of the cost of completion of the Cathedral, in sections, as desired:—Completion of the two eastern bays of the nave and aisles and the erection of four additional bays, £16,500; two additional bays of the nave and aisles £7,500 (the cost of these two bays would be greater in proportion than that of the other bays of the nave and aisles, because the eastern piers of the western towers and the arch across the nave connecting them are necessarily included); completion of the nave and aisles, including the western narthex and the western towers up to the height of the aisles, £10,000; north and south porches, £1,500; a further portion of the western towers from the level of the aisle roofs up to the eaves of the nave roof, being a height of 44 feet, £5,000; completion of the western towers, £5,500; spires of the western towers, £4,000; completion of the central tower and spire, £10,000; chapter-house, with the vestibule leading to it, £6,000; cloisters (with groined ceilings), £5,000; total, £71,000. The following has already been spent on the Cathedral:—For building choir, transept, baptistry, and part of the two bays of the nave, £96,180; for clock tower, £1,971; internal fittings fund, including, reredos, stalls, &c., £16,150; special objects, including carving, stained glass, &c., £1,204, making the total amount already expended £115,507.

AN interesting paper has been brought to our notice, the joint production of Mr. W. B. Cook, C.E., and Mr. F. Willoughby, upon a new method of utilizing canals for traffic, with special reference to the canals of Lancashire and Yorkshire. It was proposed to draw off the water from the long-distance canals and lay down on the bed of them a standard main line of 4 ft. 3½ in. gauge railway, constructed with stone foundations, timber sleepers, cast-iron chairs, and a single line of 90 lb. to the yard steel rails, with gradients in the place of locks, retaining as waterways such portions as might be required to connect the rails with other canals which were not transformed or with canalised or other rivers. A single line of rails with sidings and turnouts would be sufficient to transport ten times the amount of traffic at present carried over the canals, but there was ample room on all canals for a double line, which could be laid down when required.

AT the meeting of the Halifax Town Council, held on the 2nd inst., the question of adapting the old infirmary buildings to serve the purposes of a police station and a court-house was deferred at the request of the magistrates. Since then the members of the Town Council have met the borough engineer, Mr. Escott, at the old infirmary. Mr. Escott stated that some of the suggestions made by the magistrates could be easily accepted. The prevailing opinion was that the adaptation scheme should be proceeded with, and subsequently, at the monthly meeting of the Watch Committee, a resolution favourable to that scheme was adopted, and it was also agreed to recommend that application be made to the Local Government Board for sanction to borrow £9,000 for carrying out the necessary alterations to the old infirmary buildings.

LONDONERS are generally indifferent to the adornment of the metropolis of the Empire. They have now an opportunity, to some extent, of removing this well-merited reproach. Last year the London County Council was offered the equestrian group of "Boadicea Heading a Charge of Chariots," which it took the late Mr. Thomas Thornycroft fifteen years to model. The only condition attached to the offer was that the Council should defray the cost of casting the group in bronze. The Council at first accepted the gift, but subsequently relinquished it on finding that it would cost £6,000 to cast the group. It was felt that the opportunity thus afforded of enriching the decorations of London ought not to be lost, and after the decision of the London County Council was made known the project was taken up by a committee consisting of members of Parliament, members of the Royal Academy, and of the County Council. They have ascertained that the original estimate for casting the group was altogether too high, and two offers have now been made to them to carry out the work for £2,000. Mainly through the exertions of Mr. W. J. Bull, the secretary of the committee, the larger part of the money required has been collected, and he hopes the balance of the £2,000 will be provided by the Council. If these hopes should prove to be well founded, there is every reason to expect that Thornycroft's representation of the British warrior-Queen will be eventually erected on the Embankment, or some appropriate site.

THE exhibition in the Art Gallery of the Guildhall, of a hundred water-colour drawings by masters of the early English school, is valuable both historically and artistically. The drawings, which are all from the collection of Sir Charles Robinson, are representative enough, and include examples of most of the Artists by whom one of the most individual branches of our national Art practice was created. The earliest productions are those of Cozens and Girtin, and the progression is continued through Prout, Barret,

J. S. Cotman, and Pugin, to Turner, Bonington, and David Cox, and ends with De Wint. Within its comparatively small limits, the collection is admirably complete.

MR. E. A. ABBEY has been commissioned to fill some of the bare panels round the atrium of the Royal Exchange with mural paintings, and the Artist's work of a similar nature for the Boston Library proves the wisdom of the choice on the part of the Merchant Taylors' and Skinners' Companies, who are making the gift. One panel is already filled by the late Lord Leighton's picture of "Phœnician merchants trading with the natives of Britain." When all are similarly treated, the aspect of the now cold interior will be altogether changed.

IN Dover Street, a few doors from Piccadilly, has been opened the "house" for the Arts Club. A marble staircase, reconstructed, makes the entrance hall larger and gives it more light, but the old and elaborate balustrade, with the arms of the Stanleys introduced, has wisely been retained, and the mouldings and decorations on the beautiful ceilings throughout the reception rooms also recall the original ownership of the house. A large brass chandelier, designed for many lights, is the principal feature of the inner hall, and came in for great commendation. It bears the date 1720, and is supposed to have come from some city Church when candles were the only illuminants. The alteration has been carried out under the direction of Mr. Watson.

PARIS will soon rejoice in the possession of an underground railway. The project has received official approval, and will consist of six principal lines with narrow gauge, and worked by electrical engines. One line will run by a zigzag route from the Porte de Clignancourt to the Porte d'Orléans, another along the Champs Elysées and the Rue de Rivoli, a third makes the circle of the outer Boulevards, a fourth runs east and west from the Porte Maillot to Père Lachaise, the fifth is a short line uniting the Boulevard de Strasbourg to the Pont d'Austerlitz, and the sixth leads from the Boulevard de la Charonne to the Place d'Italie. Another line will eventually be undertaken from the Gare d'Orléans to the Quai Conti, but it will not be put in hand just yet. In fact, of the lines which are already traced, it is not yet decided which will be begun first, as the Municipal Council will not settle that until the question of the money which will be required has been got rid of.

THE Duke of Cambridge presided at the meeting of the committee of advice in connection with the Victorian Era Exhibition. Mr. Paul Crèmieu-Javal spoke on the advantages of the site and buildings at Earl's Court for such an exhibition. The site consisted of 22 acres; and upon it the company had spent £100,000 in putting up entirely new buildings especially for an exhibition of this sort. Sir S. Northcote, as chairman of the Commercial and Industrial Section, said the object of that section was to provide an exhibition showing the present position of the leading trades and industries of the country as contrasted with what they were at the time of the Queen's accession, showing the immense progress and development made in all sections during those 60 years. Mr. MacWhirter, as chairman of the Fine Arts Section, said he would do his best to see that this exhibition was representative of the era of Victorian art. He intended to be present at the selection of the works of Art, and he should see that nothing that was meretricious or common would enter into his department. Sir George Birdwood said his department intended to appeal to the public for commemorative and historic objects illustrating the Queen's reign, and he thought they would receive a great deal more than they had room for. He suggested the establishment of a Victorian garden and an Elizabethan garden to show the contrast between the two eras. There would also be wax figures showing the development of costumes. Other speakers were Mr. Charles Wyndham and Mr. W. H. Cumming.

AMONG the numerous curiosities to be found in Abyssinia the most unique are its monolithic Churches. Much light has been thrown on the subject by M. A. Raffray, a French explorer. He was the first European in modern times to penetrate into the interior of this territory, and in the course of his investigations he has made many important discoveries. He found altogether no fewer than two hundred monolithic Churches, widely varying in age, but almost all identical in style. Abyssinian villages are, as a rule, situated on the slopes of small hills, and the Churches are constructed at their base, where a single huge stone can be found. When the stone has been selected the Architect superintends the excavation about it, taking care that one side is attached to the hill. The workmen afterwards with their pick and chisel shape the front, and so skilful are they that they can simulate walls and even porticoes with colonnades on the block. The interior is divided by columns, and by lateral and transversal vaults joined together by ornamental arches. There are altogether five small naves and eight small galleries which are separated from one another by rectangular columns, capped with beautifully-designed capitals. There are windows at both ends and at one side. They consist of a large circular hole in the middle, with a large cross below it, and above it smaller circular openings in the form of stars and Grecian crosses, all of which are covered with coloured glass. The colonnade on the outside supports a number of galleries, which are only used by the worshippers during certain festive seasons in the year. In front of the Church two fairly large yards have been excavated, and these are connected with subterranean tunnels which surround the Church, and are only used by officials and the most important potentates in the town.

GREAT improvements have been carried out at Rutherford Free Church, and, although the decorative work of the interior is not finished, the north gable gives an idea of the finished effect. The heightening of the walls and proportionate gables and intersecting roof of the new transepts have taken completely away the somewhat squat appearance of the old Church. The main idea by which increased accommodation has been secured is the building of side transepts and the addition of side galleries. The front elevation is improved by the building of a corner pinnacle, and the whole front and tower have been re-pointed. Both transepts and galleries are lighted by Gothic windows glazed with leaded cathedral glass, and the two rose windows in the east and west transepts are filled in with stained glass. In the interior, instead of the single-end gallery, there are now new galleries round three sides of the Church, giving additional accommodation for 200, while the ground floor transepts accommodate 60. The sitting accommodation of the Church is thus increased by 260 places.

MR. ROBERT HAMMOND, Consulting Electrical Engineer to the Hull Town Council, has just given the Council some very interesting statistics regarding electricity supply works in this country operating under statutory powers. There are 115 in all, 68 in the hands of local authorities, and 47 in the hands of companies, the respective capitals being £3,150,000 for local authorities, and £5,650,000 for companies. Thus, besides twenty works now in course of construction, upwards of nine million sterling is invested in the industry.

THE bill to be introduced into Parliament by the city Corporation for the transfer to itself of the powers and duties of the Commissioners of Sewers has been printed and circulated. The object apparently aimed at is a distinction without a difference, at any rate without very much difference, and such proposals as are made will be thought by many to be all to the good. The court now elects the Commission, which is thereafter quite independent to carry out its large lighting, paving, and other contracts just as it pleases. If this Bill passes, the court will appoint a committee, which will report their proceedings for approval, like the other committees of the court.

AN important report on the damage caused by the recent gales on the shore at Brighton has been drawn up by the borough engineer and surveyor. For the protection of the front, the surveyor submits a scheme comprising a sea-wall extending from near the Aquarium to the western side of Royal Crescent, Kemp Town, a distance of 1,700 feet, also four concrete groynes. The cost of the work, if carried out, he estimates at £27,800. As an alternative scheme, which he has not fully prepared, the surveyor suggests the construction of the sea-wall further southward, which would allow of the extension of the eastern lawns. In proof of the denudation of the beach, it is pointed out that two groynes which had been buried for some years have now become uncovered to a considerable extent.

The justices of Brentford have decided that the Grand Junction Waterworks Company cannot include in their assessment for domestic supply the value of a garden as well as charge a special garden rate—it would be monstrous if they were at liberty so to do. The case was raised in an appeal against the company by a Mr. H. P. Davies, of Ealing, who has so far succeeded in obtaining a reduction of £20 on his assessment, that being the value of the land. The company, however, gave notice of their intention to take it to a higher court.

THE Exhibition of the studies of the late Lord Leighton, at the Fine Art Society closes the old year and begins the new. It is a marvellous assemblage of the studies of a lifetime, beginning with an "Allegorical Study in Pencil and Wash," dated 1847, and ending with "Studies for the Decoration of the Rylands Library at Manchester," done only three days before his death. The only large picture shown is that of "Clytie," on which the Artist was at work the Sunday before his death, when he remarked to a well-known critic that he thought he had "never done better." Especially should be mentioned "Study of an Arm," notable for its soft flesh-like quality, "Study of Hands," and "Drawing of a Well." Full of interest, too, is the *gouache* sketch for "Cimabue's celebrated Madonna is carried in procession through the Streets of Florence," as well as the pencil studies of "Roses and Pigeons," "Bay Tree," "Fig Tree," and "Vine." In the Nelson room the works belong to a later date. There are no fewer than ten sets of studies for the "Daphnephoria," full of variety and subtle beauty; we have elaborate studies of drapery in "Cymon and Iphigenia," in "Captive Andromache" "The Ball Players," and "The Phœnicians bartering with the Britons." Three studies for "Clytie" are wondrously beautiful for their grace of design and delicacy of treatment. The numerous nude studies are remarkable for their beauty and grace. Fine examples of these may be found in "Nude and Draped Figures" (139). Among other examples that should claim the earnest attention of the visitor may be mentioned "Music," "Figures at a Doorway," "Kitten," "The Last Watch of Hero," "Sybil," "Return of Persephone," "Perseus and Andromeda," "Bacchante," and "Fatidica."

UP to the present there are five schemes for the new Cardiff Town Hall, indicating different methods of dealing with the site in St. Mary Street. They have been prepared for "certain clients" by Messrs. J. P. Jones, Richards and Bugden, but it is no secret that chief among the certain clients is Mr. James Howell. That known as scheme A. is the most in favour at the moment. This scheme contemplates utilizing the present and extended site to Quay Street and widening the latter. The area to deal with is 9,545 square yards or thereabouts, and after allowing for the widening of Quay Street to 50 feet, the road adjoining the London and Provincial Bank to 45 feet, and setting back the frontage of the suggested new building so as to make St. Mary Street at this point 111 feet wide, there is a space left of 5,084 square yards or thereabouts. The building would include Assize Courts, Police Courts, and Assembly Room. It is stated that the arrangement, sizes of rooms, and spaces allotted to the different departments have been laid down as nearly as possible to those adopted in the most approved municipal buildings erected of late date. The majority of the rooms face the main streets, access being given to them by a corridor 8 feet wide, which runs completely round the inner side of the building; and at four different points in the corridor lifts are provided to give easy access from floor to floor, and also five staircases. Thus all the departments could be reached expeditiously and without confusion. If the building is erected with elevations in the best Bath stone it is estimated that it could be erected for about £124,000, but if in Portland stone, which would be more durable, the cost would be about £147,000.

"A PLEA FOR THE USE OF NATURAL FORMS REVEALED BY THE MICROSCOPE, AS SUGGESTIONS FOR ARCHITECTURAL ENRICHMENT."

BY W. HOWARD SETH-SMITH.

(*A Paper read at the A.A. on Friday last.*)

IN this paper my remarks must be interpreted to apply especially to the enrichment of Architectural features as distinguished from the work of the decorator or ornamentalist, and I will ask you moreover to discuss my arguments and statements by the light of those examples of European Architecture which have, by the universal consent of experts in all ages, been regarded as making the zenith of their particular style. Such examples, for instance, as the best Grecian, Gothic, and Rennaissance periods furnish. The plethora of theories as to the origin of the best Architectural ornament is the strongest evidence of its obscurity. One school traces its genealogy back to a specific flower or leaf, another assures us that it originated in scroll, zigzag, or other more geometrical forms, that any similarities to the characteristics of natural foliage are super-added refinements, and that in ages of decadence only do we find literal rendering of natural forms. This last statement I accept as beyond dispute. Interesting as all such theories are, I prefer to adopt—rather than to rush in on such sacred ground of controversy—a broader, yet sufficiently definite ground, this namely: that in the best periods, Architectural enrichment, while retaining the characteristic beauties of nature, is so highly idealized as generally to baffle the attempt to identify it with the specific natural forms which originally suggested it, or have contributed to its evolution. This applies to statuary as well as to Architectural ornament, and I would suggest that in this ideal character lies the secret of their enduring appeal to the æsthetic sentiment of all ages. We must, however, never lose sight of the fact that these artificial forms which have lived so long are the outcome of the improvements of many generations of Architects and sculptors. The pleasures we now derive from these ancient forms are probably largely those of the antiquary; the degree of pleasure, therefore, depends essentially upon "correctness" in every particular; whereas living Architecture has in the past and will in the future depend on the amount of tasteful invention Architects are able to import into their work, consistently with non-violation of the laws of limits of strictly constructional Art. For this reason I have always strongly advocated a close study of the best contemporary work, and I do not hesitate to affirm that it is the most important study the young practising Architect has to pursue. Not, however, to the exclusion of that of the antique. Our taste is formed and refined by such study, to say nothing of the fact that we are constantly called upon to undertake the restoration or alteration of classic buildings, and are then bound to work more in the spirit of scholars than of designers. The human mind, however, is happily so constituted as to weary of the ceaseless recitation of even the most beautiful forms. The true Artist rebels against reiteration, and great as are the possibilities of fresh combination of the best details by thoughtful and clever Architects, I am safe in saying we are weary to death with the "Orders" of Architecture, both classic and Gothic, and with their ornament. Its interest is gone! It is a dead language! There is an outcry for something fresh, and this yearning is at the bottom of the movement just now so popular with our younger men to become actual builders and craftsmen rather than mere draughtsmen and overseers. A most healthy movement this, as healthy as that of fifty years ago among painters, under the inspiration of Ruskin's teachings. This movement is

BASED ON COMMON SENSE,

inasmuch as it admits that Architecture is not pure poetry, but insists, nevertheless, that it shall be poetical. Our Art is fettered by constructional cost and many other prosaic and inexorable conditions (but ought I to say fettered? is not the solution of the constitutional problem almost as great a joy as that of the detail?). There is, however, enough poetry left to sweeten the Architect's life, and woe be to the budding Architect who, led too far into the Arcadia of the Fine Arts, neglects those limitations, his will probably be a rude awakening when his first patron comes along. I do not understand this movement to bar the use of all ornamental forms of the past, but to encourage the thought and invention in its use as in everything else we do. In other words it is not a revolutionary school of thought. Revolution attempts what the history of mankind has proved to be impossible, a sudden act of creation. Revolution is the destruction of first principles and is consequently fatal to reform. Reform is the destruction of abuse and harks back to first principles. It is reform we need, determination to work in future on the *principles* which evolved the enrichment of Athenian, Greek, and thirteenth-century Gothic. If this be the teaching of the school I refer to, and if we be true to it, nothing but good can result to us, and we may give it our support ungrudgingly. Will you pardon me if I digress with the object of most humbly offering one piece of advice, not new I am well aware, but worth emphasising? It is this—to shun pessimism and to face unalterable facts, cheerfully trying to discover in the characteristics of our own age new motives for invention, the new foundation from which to evolve the style of the twentieth century. Depend upon it our times provide ample compensation (even for Artists) for the loss of the advantages, too often imaginary, of the romantic ages. It is ours to discover them, certainly not to indulge in raillery against the unchangeable in our environment, but to make the most of it. My object to-night is to point out what strikes me as being one of these advantages as affecting our own craft. The natural forms I shall show you were for the most part unknown to the human eye fifty years ago. Twenty years since many of them were discovered by the scientific experts of the celebrated "Challenger" Expedition by the aid of the microscope. Among this new world of wonderful forms are many so original and so beautiful that I thought it worth while calling your attention to them as singularly suggestive for

STONE-CARVING OR PLASTIC DECORATION.

In doing so I am perfectly aware that it would be unreasonably sanguine on my part to imagine that you will get workable suggestions from all of them. Suggestions from natural forms are our alphabet. We may coin many novel words by their aid, but all will not live and grow to be part of the lithic language of generations to come, as has for instance the beautiful egg and dart enrichment, the resultant, remember, of many Artistic minds. I merely aim to enlarge your vocabulary by introducing these forms to your notice. In making my selection from them, I have as far as possible chosen a few typical ones in each class. Nor have I by any means exhausted the classes. If the geological and botanical libraries and museums were searched, many works would be found to yield astonishing and most usefully suggestive forms. The microscope has enabled the human eye to extend its vision to an almost unlimited range, embracing myriads of new forms, and marvellous herein, that the higher power we apply, the more intricate, suggestive, and admirable are the forms revealed. This fact would alone constitute an apology, were one needed, for my theme. If it be true that without constant inspiration from nature our work must deteriorate, let us welcome every new light science sheds on nature. The fact that the Renaissance styles have been devolutionary rather than evolutionary, is surely to be accounted for by their designers borrowing their ornament from ancient Architecture without consulting either nature or science. Nor let us fold our hands because we believe a genius is wanted to effect a massive adaptation of a new element of design to Architecture, no such wholesale or sudden creation of forms has ever yet taken place, and never will. The average man cannot be a great reformer. Original composers are rare, while recitative talent is common. Let the standard of our criticisms of all contemporary detail be this—does it contain true feeling for beauty combined with rational construction, or as Mr. Albert Goodman puts it, "Our enrichments must be as much the product of our brains as the other parts of the work." Have we, however, no creators among us? There are, I am bold to say, as many men doing original work of a higher order as there ever were before, and in Architecture too. I will go further, and say I believe that the last 20 years of English Architecture showed a more rapid origination of really beautiful forms than any previous period of the same duration. The scientific discoveries of this century are at the root of its characteristic civilisation, and are Artists to be debarred from the new forms science has given them, and the use of which can make their Art progressive and accommodative? I have a strong conviction that we have greatly lost touch with the public, because we rather plume ourselves upon being non-scientific. Architecture must never be conservative, she will always find static forces in the affections of the public for old familiar forms and in the restraints of ecclesiasticism to express exuberance. She must be Nature's mistress, and if so will perforce ever be fresh and original enough. How many of us are found more often in the Natural History Museum than in the Archæological Museum over the way! The latter is

THE PLACE FOR THE STUDENT,

but not so much for the practising Architect. In this connection it is interesting to know that the details of many of the terra-cotta shafts designed by Mr. Alfred Waterhouse in this natural history museum are so similar to some of the Polyzoa shown you to-night that I asked him whether they were suggested by them. He tells me that is not the case, but by the forms which you will find in the cases illustrating the coal measure in the Fossil Corals room. I think, when you have examined these shafts you will agree with me that they strongly support my arguments in favour of working on these lines and in this newly-opened field of nature. They are not only original but beautiful, and harmonize wonderfully with the more historic forms around them. At the same time, let us be analytical students of past Architectural ornament. Tennyson was, as a poet, a great student of nature; he lived and breathed in it, but I believe his pre-eminence in his day was due to his adding to this great principle of work an extraordinary knowledge of the origin and character of the language in which he expressed nature's inspiration and of the best poetry which had been composed in it before. Any new forms or systems of ornament must at first be supplemental and not suddenly substituted for those with which the public are familiar, and of which they are fond. If my proposition of the hidden origin of the most beautiful and enduring types of Architectural sculpture approves itself to your minds then perhaps you will agree with me in believing that suggestions borrowed from these microscopic forms will appeal none the less strongly to the public on account of the obscurity of their origin; that they combine sufficient rarity and originality in detail with a certain approximation to many forms of Architectural detail which have established themselves in the affections of civilized mankind; that a large proportion of them are of the nature of shells or silicale cases once protecting a living cellular creature; that they are much more adaptable to Architectural carving than foliage or flowers in that they are already lithic in character. If the committee and the honorary visitors to the studio of the Association approve of the proposal and are willing to set the necessary subjects. I shall be happy to offer a prize of ten guineas in the next session for the best design based upon the subjects of this paper.

In opening the discussion, the Chairman said, he was sure they would all feel that Mr. Seth-Smith had been tackling a very difficult subject—a subject, the difficulty of which would especially appeal to every practical designer. There were few things more difficult to define than beauty and ornament. He had not a moment's doubt that they were all wrong in thinking those objects were beautiful which they liked, or those objects ornamental which appeared to them to be beautiful. They wanted some philosopher, not of a humorous sort, but of a steadier cast of mind, to guide them in the very first principles of the doctrine of designs. As Mr. Seth-Smith had pointed out the world went astray in the matter of ornaments; none of them knew what they were about. Mr. Ruskin had been exercising a strong influence upon the world into which they had been born; our forefathers believed in him, and regarded him as a prophet, but we saw the fallacy of what our forefathers regarded as so much Architectural principle. But he was afraid that we were in this position: we saw fallacies in everything. Mr. Seth-Smith had pointed out that the following of natural forms in ornamental designs was to be deprecated—at least he had deprecated it as a sign of diffidence in Art, and, to a certain extent, they agreed with him. But to what extent, it was very difficult to decide, simply

because they had not seen any really good naturalistic ornament in their time. Naturalistic stone-carving was an anomaly, and naturalistic roses were as great an anomaly as naturalistic carving in stone. They were in a fog; they did not know where they were in the matter of ornament and beauty. For a long time he cherished the enjoyable reflection that Ruskin's definition of beauty as being an expression of the delight that an Artist took in his work, was a working hypothesis, but unfortunately they found a great number of men who took a great delight in their work with the most unfortunate results. Indeed, how often was it that the more delight a man took in work the more wilful and woeful was the result? They had to assume when a man took a great delight in his work that he was acting in accordance with principles which would ensure the acceptance of his work by his fellowmen. Did it come to this: that no work was beautiful unless it was beautiful in the eyes of others as well as in their own? He was afraid it did. He was puzzled once by John Stuart Mills' suggestion that the time would probably come when all possible combinations in sound would be exhausted. He (Mr. Pite) supposed Mills had beforehand made a mathematical calculation as to the number of sounds which could possibly be evolved out of an octave of notes, or a series of octaves, and found that, however wide the range, there must be a limit, and that the limit would be reached after a century or two of music. They were accustomed to talk about the infinity of geometrical forms, and recognised that there was an eternity of possible combinations of geometrical figures. One wished that it was an absolute fact, for they were led to the interesting suggestion that the combinations of geometrical forms might some day be exhausted. But passing from these generalisations, he came to Mr. Seth-Smith's assertion that new ornaments were required. He (the speaker) ventured to suggest that new ornaments had nothing to do with the Orders as had been indicated, but agreed as to the desirability of new ornaments. They might have a building very beautiful in its arrangements, but unutterably wearisome in its ornaments —a fact which was strikingly exemplified in the case of the Architect for the building constituting the riding school in Buckingham Palace and for the London University, the sole Architectural beauty of which was derived from its sculpture. Take a delight in your ornaments most decidedly! They should never copy ornaments however. The moment they copied ornaments they ceased to be ornamental; they had fallen into the mechanical and geometrical part of the scheme of designers, and became merely part of the scientific framework of their buildings. When they copied their mind was not free. As to Mr. Waterhouse's natural history museum, whilst acknowledging its great interest, he disputed its beauty. A first-rate locomotive was beautiful in the eyes of an engineer, and in that sense some claim could be made out for the museum. But it was designed in such a way that it failed to elevate one; it rather had the effect of drawing one down. In looking at the building they thought of the terra-cotta, and of the great intellect and skill which had marshalled such a multitude of forms. They wanted elevating and lifting up. If they looked across the road at the Science School, where every ornament in the smallest moulding and decorative panel was beautiful in the extreme, they got above the limits of definable Art; they simply said it was beautiful, the reason why they could not tell. Mr. Seth-Smith had made use of two expressions, which he (the speaker) wished to object to. The first was as to suggestions borrowed for natural forms; suggestions borrowed for natural forms could never make beautiful ornaments. They might make propositions very suggestive for discussion, but to borrow from natural forms suggestions which would lead to beautiful ornaments was impossible. They might paint the rose beautifully, bnt he very much questioned whether there was an Artist living who could embroider the rose. They had not the eyes which enabled them to see the beauty in these things apart from the indefinable Art. Then another of Mr. Seth-Smith's expressions, which was open to criticism, was in what he had said as to obscurity of design. Obscurity of design, the speaker ventured to say, was altogether destructive of interest and beauty. If they had beauty, it must be capable of being revealed to the intellectual observer. It would never do to design an ornament, and say "this is beautiful because it is a copy of a form revealed by the microscope." The scientist might say "how interesting to see this man copy a natural form thus," but there the interest ceased, and the design could not, therefore, be successful. Such a design might look well at a distance, but when the veil was lifted they would feel disappointed. The pessimism he had indulged in would not, he hoped, have the effect of damping the discussion. It was quite novel and refreshing to have something new to debate.—Mr. Alfred Goodman said he did not think Mr. Seth-Smith advised them, as the Chairman had said, to copy exactly a natural form, but merely that they should make a natural form the basis of their design. Many of the suggestions in the paper, he thought, were very good and some of the forms which had been put upon the screen appealed very strongly to them. But if in the execution of a design every part was embodied the effect would be to lessen the beauty. It was emphatically true as the Chairman had said, that things which appealed to them alone were not necessarily beautiful but their opinions as to what was beautiful did not widely differ.—The discussion continued and a vote of thanks to the Chairman was supported by Mr. Wallace Rimmington, the well-known painter, who said the Chairman had touched upon a point of interest to them all—whether there was any law underlying beauty, and whether that law was in any way ascertainable. He did not agree with him that such a law was altogether unascertainable. In nature there was a general agreement among those who love nature as to the beauty of some forms. And if such an agreement did exist surely there was some underlying law which existed also. Some time ago he had endeavoured to set down in an article laws which he thought were applicable to the beauty of painting, and similar laws could possibly be discovered relating to the building of Architecture. If any system, such as that suggested by the paper, was adopted, however, they would lose one of the great charms of Architectural ornament, *i.e.*, the charm of association. They would do away with the associative side of Architecture by stepping into the field of natural forms, which was of course a purely scientific field. The illustrations which had been given suggested a principle which he might call the radiative principle underlying beauty. Any combination of lines which followed a radiative principle had a tendency to become beautiful. For instance, there was no beauty in a heap of hay, but if they saw the grass growing which produced the hay, they would note a radiative beauty. As to the Chairman's remarks as to the necessity of there being nothing indefinite in Architecture, he (the speaker) believed that, as in a picture, Architecture ought not only to be positive in its statement of fact but also ought to contain a suggestive element. Otherwise he doubted it being very fine Art. A few of the forms which had appeared upon the screen were indescribably beautiful, possessing a subtility of outline which might be used with comparatively little alteration. He quite agreed as to the danger of going too far in this naturalistic direction.—The Chairman replied to Mr. Remmington, urging that every natural form was in itself beautiful, but they had to analyse the forms before they could fully appreciate them. As to the degree of definiteness required in Architecture, he emphasized what he had previously said, and went on to repeat that they could not borrow suggestions for natural forms. If they did borrow a suggestion, the ornament must be bad. The vote of thanks to Mr. Seth-Smith and to Mr. Richards and Mr. Wannacott, who had assisted Mr. Seth-Smith, was carried, and acknowledged by the reader of the paper. The next meeting, the Chairman announced, will be held on the 15th of January, when Mr. Prioleau Warren will read a paper on "Decorative plaster-work."

AT a recent meeting of the Wolverhampton Town Council, the Public Works Committee again submitted a large number of building plans for approval, and it was stated that 885 plans were approved in the past year, as compared with 379 in 1891. A further analysis had been prepared showing that a floor-space for warehouses and store-places, equal to about five acres, had been built upon, the value of the buildings being about £65,000.

TELEGRAPHY WITHOUT WIRES.

MR. W. H. PREECE, the telegraphic expert of the Post Office, at Toynbee Hall, recently lectured on "Telegraphy Without Wires." There is, of course, nothing new in the fact of being able to communicate without wires, but towards the close of his lecture Mr. Preece announced that a new invention, which might have the widest possible influence not only on the future of telegraphy, but on the safe navigation of ships, had lately been brought before the department, and no expense would be spared to thoroughly test it. Mr. Preece stated that, in 1884, he was very astonished to learn that the operators in the Telephone Exchange in the city of London, were able to read messages that were going through London to Bradford by telegraph wires. The wires belonging to the Post Office were underground, and those belonging to the Telephone Company overground, and by dint of careful experiments this very fact was found to be the reason why the messages going to Bradford were read by the Telephone Company. Further experiments showed that the same effects could be traced on wires separated by as great a distance

AS TEN MILES.

Last year the cable connecting the island of Mull with the mainland broke, and while the cable ship was getting ready to repair it he sent the apparatus down to Oban, and it was rigged up so as to maintain communication between the two places. It had seemed to them that it might be useful for another purpose—that of communicating with lightships and lighthouses, and experiments were carried out in this direction, and the Goodwin Lightship, off Ramsgate, was chosen for them. Unfortunately, they found that it was quite impossible to get a message on board. The intervening sea-water performed much the same function as an iron plate—the electric waves were intercepted, and did not reach the ship. Mr. Marconi, a young Italian electrician, came to him recently, Mr. Preece said, with a system of telegraphy without wires, depending not on electro-magnetic but on electro-static effects—that is to say, on electric waves set up of a much higher rate of vibration, 250,000,000 a second in fact. These vibrations were projected through space in straight lines, and could be reflected and refracted like light—indeed, they were capable of all the phenomena which light was allowed to go through. The invention—which dealt with the method of receiving and sending messages by this means was first experimented with on the roof of the Post Office, and then for three-quarters of a mile on Salisbury Plain. The great difference between the system which had already been tried and Mr. Marconi's system was that in the former a wire on each side was necessary, and in the latter

NO WIRE WAS REQUIRED.

Vibrations were simply set up by one apparatus and received by the other—the secret being that the receiver must respond to the number of vibrations of the sender. The apparatus was exhibited. What appeared to be just two ordinary boxes were stationed at each end of the room, the current was set in motion at one and a bell was immediately rung in the other. Mr. Marconi held the receiver and carried it about, the bell ringing whenever the vibrations at the other box were set up. Continuing, Mr. Preece said he had had the greatest possible pleasure in telling Mr. Marconi that day that the Post Office had decided to spare no expense in experimenting with the apparatus, and one of the first trials would be from Penarth to an island in the Channel. He might add that he had the greatest faith in the apparatus. The curious thing about it was that there was no new principle introduced. The first man who taught us how to generate these waves was Hertz, the German physicist, and they had been developed by others. But in making practical use of these waves Mr. Marconi had invented devices which were highly novel and very beautiful, and when they were patented and could be made public, he thought they would be admired by everybody.

MR. JOHN GALLOWAY, a son of the late Mr. William Galloway, one of the founders of the engineering firm of W. and J. Galloway, the Knott Mill Ironworks, died last week.

Professional Items.

ARDLAMONT, KYLES OF BUTE.—There is to be a new pier erected near the Point, Ardlamont, Kyles of Bute, and the pier at Kames is to be renewed. The new proprietor, Mr. Robert Watson, intends to feu at Blindman's Bay, which is a beautiful situation, and no doubt the feus will be rapidly taken up when the new pier is erected. Mr. W. Burns Stewart, Architect, Glasgow, has been appointed engineer, and has already made a preliminary survey, and settled on the site.

BARNSLEY.—At a meeting of the School Board, last week, tenders for the alteration of the Harvey premises for offices, &c. were accepted. The total cost of the alterations, including Architects' fees, would be £3,500. The site had cost £3,100, making £6,600 altogether.

BELFAST.—New premises have been erected for Messrs. Barr and Truesdale's in North Street. The buildings have a frontage of thirty-two feet to North Street, and are four stories high. The contractor was Mr. W. G. Callen, Peter's Hill, the Architect being Mr. T. Pentland, High Street, Belfast.

BIRMINGHAM.—A new building is being erected in Dean Street for the purpose of a school, by Messrs. J. Barnsley and Sons, from the plans of Mr. J. H. Hawkes, Architect, Temple Row. A plot of land has been acquired in close proximity to Sherlock Street, and the plans provide for a suitable structure externally, and one which will provide all that is needful in the shape of accommodation and convenience. The building will be in late Gothic style, and free from elaboration, the front being composed of red brick, with dressing of Horsley Castle stone. Accommodation is to be provided for 300 scholars.

BRADFORD.—New additions have been made to the St. Michael's Day and Sunday schools, City Road. The additions have been necessitated by the hitherto inadequate accommodation in the day schools, and comprise two large class rooms, with lavatories and so forth, in the mixed department, and another class room in the infants' school. The work has been carried out from the plans of Mr. W. K. Shaw. The Rev. J. E. Perkins V(icar) presided at the opening ceremony, and amongst many others present were Mrs. Armitage, Mr. Norman Armitage, the Rev. R. Ross, and the Rev. H. Stapleton. The pupils in the mixed department, conducted by Mr. Lindsay (head master), sang several hymns and part-songs.—The Vicar read apologies for non-attendance from the Vicar of Bradford and others, and stated that the cost of the additions, including furnishing, will amount to about £700.

BRAINTREE.—The new post-office building, opened last week, stands upon the site of the old office, and has a frontage of 33 feet of white brick, ornamented with panels of fancy red brickwork. The Architect was Mr. J. W. Clarke, of Coggleshall, and the builders were Messrs. Smith and Son, of Witham.

BRISTOL.—Old premises at the corner of Clare Street and Marsh Street are being demolished, and will soon give place to the new offices for the Law Union and Crown Fire and Life Insurance Company. The design combines with stability considerable ornamentation of a quiet and effectual character. There are three entrances to the premises. The corner or main entrance, which leads direct to the company's office, is massive and thoroughly ornamental, surmounted by a richly-carved pediment supported on full-length carved figures resting in moulded bases. The various offices over the ground floor will be approached by an entrance from Clare Street. There will be another entrance in Marsh Street, which will lead to the ground floor offices in the rear. The Architect is Mr. Henry Williams, of Clare Street, and the builder is Mr. John Perrott, of Bristol.

EDINBURGH.—For months the Directors of the British Linen Company have had under consideration the extension of their branch premises in St. Catherine Street. The Edinburgh Architect of the Bank some time ago made a practical survey of the buildings, and it was surmised at first that a complete reconstruction of the internal accommodation would be amply sufficient for all the recent requirements. After mature deliberation, however, it has been resolved to effect more thorough alterations, and to expend a sum that will make the Bank one of the most imposing public buildings in the county town. The internal arrangements are to be entirely altered, and the office, as well as private consulting rooms, are to be fitted up with every modern convenience. The front wall is to be brought forward three feet, and will then be in line with the County Treasurer's offices on the west. The Bank building will in addition be increased in height several feet, so that it may be in conformity with the western offices.

GREENOCK.—The Ardgowan School, erected at the junction of Brisbane Street and Nelson Street (West), has been built to plans prepared by Mr. James Stewart, Architect, Greenock, at a cost, including land, of about £14,000, and will accommodate about 900 scholars, and is to be devoted entirely for the purposes of elementary education. The exterior of the structure is somewhat plain in character, but the interior is quite up to that of the more expensive and higher-class schools. The principal contractors were:—Mason and brickwork, Messrs. R. Aitkenhead & Son; carpenter and joiner work, Mr. James Agnew; iron and steel work, Messrs. Bladen & Co.; slater work, Messrs. Peter Mackay & Sons; plumber work, Messrs. Crawford & Kerr; gas-fitter work, Mr. Henry Carson; plaster work, Mr. James M'Creadie; painter work, Mr. Wm. Melville.

LEEDS.—The Church of the Sacred Heart, in Burley Road, Leeds, has been reopened after having been enlarged. Originally 50 ft. long, and 28 ft. wide internally, the Church has been enlarged to 87 ft. long and 46 ft. wide, by the addition of three bays to the nave and an aisle 87 ft. long by 18 ft. wide. An arcade of seven moulded arches, carried by columns having moulded caps and bases, divides the aisle from the nave. The Church is well lighted by traceried windows. The roof of the nave is panelled and boarded, and the aisle roof has wrought framed rafters and boarding, the roof beams having traceried spandrels. The entrances are by a wide central door and a door into the aisle, each having screens with swing doors to prevent draughts. The sanctuary has been lengthened by about 10 ft. The Church will seat over 600 persons. Under the Church are new infant schools, with class rooms, having accommodation for 200 infants. The contract for the school and Church amounted to £2,518. The Architect was Mr. John Kelly, of Leeds, and the chief contractors Messrs. Wade Bros. Brick and mason's work, Mr. Benj. Wood; carpenter and joiner's work, Messrs. J. W. Atkinson & Son; slater's, Mr. Moore; plasterer, Mr. Talbot; plumber, glazier and painter, Mr. Tankard; the heating, Mr. Macfarlane.

MILNGAVIE, N.B.—A new Free Church was formally opened last week. The Church is on a simple rectangular plan, with a tower, 48 feet high, at the south-east corner, with a bell chamber in the upper part. The style is Gothic of the early pointed Scottish character. The area is seated for 384 and the gallery for 92, being a total of 476. The estimated cost of the Church and hall is about £3,000.

PERTH.—A large extension of Perth Academy, involving an expenditure of £8,000, was recently opened by Mr. Struthers, the newly-appointed Government Inspector of Schools for Perthshire. Regarding the development of educational facilities in Perth since the passing of the Act of 1872, it was stated that, in 1891, provision was made for the instruction of Science and Art by the erection of chemical laboratories, &c., and the present extensions, which consisted of remodelling the existing departments, also include the establishment of a physical laboratory, as well as of improved workshops for instruction in technical education.

RHYL.—For carrying out the West Promenade extension, and the erection of a sea-wall towards Foryd, the Rhyl District Council have received tenders, the lowest of which is that of Mr. Jacob Biggs, amounting to £2,959. If it is decided to carry out the whole scheme, it will cost the ratepayers £1,250; the adjoining owners contributing the remainder.

SHEFFIELD.—The foundation stone of a new building, which is to be erected on a site next the Scotland Street Methodist New Connection Chapel, and which is to be known as "The Littlewood Memorial," was laid last week. The site was formerly occupied by some old buildings, and Mr. Littlewood promised that if these were demolished he would put a new building in their place, which should be useful for Church purposes. From that time the matter has been under consideration, and now the old buildings have disappeared, and the new block has been begun. It will include a café, a congregational hall to hold about 250 people, a ladies' vestry, and a caretaker's house, and the cost of it will be about £3,400. Messrs. Flockton, Gibbs and Flockton are the Architects, and the contract is in the hands of Mr. William May, builder, of Crookes.

SHEPLEY.—New Board Schools have been erected in this village. The schools are substantially built of stone, with dark Westmoreland slate cover for part of the roof, and a grey stone slate cover for the remainder. The general plan of the building is a parallelogram, with central hall with two class-rooms on each side, and one in front, which is intended to be used as a mixed school for boys and girls. The Architect was Mr. Hanstock. The following were the contractors:—Masons, Mr. H. Wood, Shepley; joiners, Mr. H. Noble, Shepley; plumbers, Mr. G. Lindley, Shepley; plasterers, Messrs. A. Jessop and Son, Shepley; slaters, Messrs. Pickles Bros., Leeds; painters, Mr. G. Lindley, Shepley; engineers, Messrs. Hargreaves and Dewhurst, Bradford. The total cost, including site, has been £5,400. The mixed school for boys and girls has accommodation for 348 children, and the infant school for 160 children, or a total accommodation for 508 children, which is thus provided at a cost of £10 2s. 6d. per head.

THE Labour Department of the Board of Trade reports that in all the more important industries the upward tendency of the labour market continued during November. The trade union returns shows a diminished proportion of unemployed, both when compared with October and the corresponding period of last year, the percentage being lower than at any period since June, 1891. All the changes of wages recorded during the month were in an upward direction.

THE Directors of the Great Eastern recently met a deputation of the Lowestoft Town Council in reference to measures for preventing the blocking of the harbour through a formation of a sandbank. The Great Eastern Company are willing, it was stated, to spend £50,000 on a scheme which would double the water space in the harbour, widen its entrance, construct a new pier, and lengthen the south pier, so as to make it the finest promenade in the United Kingdom.

A LETTER was read from the Local Government Board, at a recent meeting of the Town Hall Committee, stating that with reference to the application of the Mansfield Town Council for sanction to borrow £6,000 for additions and alterations to the Town Hall buildings, the reasons alleged at the inquiry for the proposed works did not apper to the Board to be sufficient to justify them in sanctioning a loan. It is proposed that a deputation should wait upon the Board to obtain a re-consideration of the matter.

THE Arts and Crafts Society of Ireland, we are glad to learn, have organized a series of lectures for December, January, and February, the first being on the 9th inst. at the University Buildings, Earlsfort Terrace, by the Earl of Mayo, on "Modern Irish Furniture." Other subjects to follow are most interesting, and the lecturers include such admirable exponents as Sir Edward Sullivan, Mr. James Brenan, R.H.A., Colonel Plunket, Sir Arthur Vicars, Mr. Walter Armstrong, and Mr. George Coffey. This is an effort greatly to be commended, and Lord Mayo's energy and self-sacrifice in promoting instruction in such industrial directions are of real advantage to the country.

ART AND ATHLETICS.

BY MR. E. LEES, M.P.

AT the Birkenhead Literary and Scientific Society, in the course of an address on "Modern Art," Mr. Lees said that though neither an Artist nor critic he was entitled like anyone else to give an opinion upon Art, which was a matter of taste. There had been an enormous advance of Artistic feeling in recent days in this country, a more widespread desire to make homes beautiful as well as comfortable. For this he thought Ruskin's writings were largely responsible, and that great prose writer had done more than any other one man to kindle a love for Art in the English. The æsthetic craze of some years ago soon died, but the good it did lived after it, and one was sometimes inclined to think we were running to the other extreme in fostering too much contempt for bright hues and primary colours. Japanese Art had also done much good to English taste, but they must not judge of Japanese Art by the cheap fans and vases they saw. It must be judged from its masterpieces, from the works done for the noble and princely patrons of Japanese Artists in their own land. In addition to Decorative Art, there was an

ADVANCE IN THE HIGHER FORMS,

And many municipalities had fostered Art by its collection of fine paintings and sculptures, of which the most conspicuous, and, he thought, the most beautiful collection was that in the Walker Art Gallery. Speaking nationally, we had not the originality or fancy of the French, but our great Artists had done magnificent work, although our Academy always contained too many pictures painted to catch the public eye, and not to elevate the public taste. The two late Presidents of the Academy had done splendid work. Leighton, with his almost Greek beauty of design, harmonious colour, and splendid finish, but in at least one picture, "Wedded," he touched the heart as well as the intellect. Millais went straight to the heart whenever he tried to do so, and no modern of the present day had such power of painting. His early pre-Raphaelite work and some of his later subject pieces would live as long as English Art endured. Among other Artists he named Watts, Burne-Jones, Dicksee, Holman Hunt, and Luke Fildes, whose "Doctor" he thought perhaps the finest picture of the day, and some of Orchardson's portraits might have been the work of Titian himself. After dealing in detail with the work of several landscape painters, Mr. Lees said there was a great and virgin field before the Artists of to-day,

A FIELD UNTOUCHED

for the last 1,800 years. The Greeks, by their perfect system of physical and mental training, developed the perfection of human form, and that perfection was reflected and reproduced in their wondrous statuary. Now-a-days the English were pre-eminent in the world of athletics, and he could not see why our modern Artists should not draw their inspirations from the physical excellencies of our cricketers, football players, and athletes generally—graceful forms, sturdy, well-shaped limbs and earnest faces. Then we had the finest horses in the world, and why did not our Artists give us great scenes of the great horse races—leaving out, of course, the objectionable features of the crowds and followers of the sport. The athletic revival in England was a fine opportunity for our great artists, who should not leave this side of modern life to our small fry. Such objects had inspired the greatest Artists of the ancient world, why should they not inspire great Artists now-a-days to give us something which, like Greek Art, shall be worthy of a nation of cultured athletes.

"THE SKY-SCRAPER."

IN our issue of the 9th instant, by an error, Figs. 3 and 4 were transposed and also placed upside down, so we take this early opportunity of rectifying the mistake.

WE understand that the designs for the new post office to be erected at Epsom, mentioned in our last issue were not by Mr. Paull, who only prepared the quantities.

SIR E. J. POYNTER AND THE ACADEMY STUDENTS.

AT the distribution of the prizes won by students of the Academy in the year lately closed, the first public speech by Sir E. J. Poynter, since his appointment to the Presidency of the Royal Academy, was made on Thursday last. The President, admitting that it was not customary in the year when no gold medal was given by the Academy to give an address at the annual prize meeting, nevertheless asked leave to say a few words. After referring to the unexpected chain of events which had led to his election, Sir E. Poynter said that he hoped to follow the steps of his predecessors in advancing the Arts of this country and the usefulness and prosperity of the Academy and its schools. His knowledge of Millais began with an acquaintanceship only formed after his (Sir E. Poynter's) election as associate. It grew into a warm and, on his side, most respectful friendship. Millais was ever ready to bring his clear judgment and his unerring eye to the help of a friend in difficulty. Sir E. Poynter owed to him many a valuable hint as to how to right some weak point in drawing an uncertainty of effect. His most remarkable faculty was that as a draughtsman he was always right, seeing everything in its true place and proportion, and never losing sight of his leading idea. His figures and faces consequently lived as those of no other Artist of our time lived. As a man he was universally beloved. His friendship with Lord Leighton was of earlier date. In 1853, when Sir E. Poynter, then a youth, spent a winter in Rome, Leighton encouraged him in his desire to become an Artist. Many of those now present could testify to the pains Lord Leighton took to personally guide them in their work. One of the mainsprings of his life was a desire to encourage young Artists. He was twenty-three years old when Sir E. Poynter first knew him in Rome, and was making studies for that picture of "Cimabue carried through the streets of Florence," which first brought him fame, and which, by the gracious consent of the Queen, would be one of the chief ornaments of the Academy's Winter Exhibition this year. The beauty and perfection of his drawing was a revelation to the present speaker. Seeing his intense interest in them Leighton treated him exactly as if he were an accredited pupil. Under those happy auspices he increased his natural love for painting, and imbibed the principle which Leighton, with his untiring energy and patience, put into practice to the end of his life. He took that principle to be that however great an Artist a man was naturally, he would never do his best without preparatory studies which would enable him to arrange his ideas before putting them on canvas. The works of Leighton would be within the walls of the Academy before many weeks were out, and the public would have an opportunity of judging to what heights the life-work of a devoted and genuine Artist could rise. The President concluded with a compliment to students on their works.

SOCIETY MEETINGS.

Architectural Association.—A meeting of the Architectural Association was held on Friday night. Mr. Bereford Pite was in the chair, and a paper was read by Mr. W. Howard Seth-Smith, entitled, "A plea for the use of natural forms revealed by the microscope, as suggestions for Architectural enrichment," which we give in another column. The routine business comprised the election of four new members—Messrs. L. Cabuche, W. S. Huxley, R. McDermott, and C. E. Power. The President made an important announcement in connection with the School of Design. The Committee had resolved to issue a new syllabus from the 1st of January, and the effect of it would be to constitute a half-section class at half the usual fee. The subjects to be treated would be similar to those set last section, and would embrace village club, country bank, metal font, &c., each subject being complete, and would be taken by the visitors as already announced. The Committee hoped that this class would be a success. It was practically a new experiment.

The Edinburgh Architectural Society. The second annual business meeting was held on the 16th inst., the President in the chair. The report on the drawings submitted in Design Competition, No. 4, "A Golf Club House," was read, the three first being, "Quedo," "The Ludger," "I ride thro'." The hon. secretaries' and treasurer's reports for the session 1896 were submitted and approved. The past session has been a most successful one, there were six lectures, seven members' papers, and numerous visits to buildings in the course of erection, or lately completed. The attendance has been excellent, averaging 40, and the membership has increased from 44 to 106. The following office-bearers were elected for the ensuing session:—Hon. President, Mr. R. M. Cameron; President, Mr. J. A. Williamson, A.R.I.B.A.; Vice-President, Mr. W. N. Cumming, A.R.I.B.A.; Hon. Secretaries, Messrs. T. R. Patterson and Ramsey Traquair; Hon. Treasurer, Mr. J. F. Matthew; Hon. Librarian, Mr. G. Murray Wilson. Committee—Messrs. A. R. Scott, A. Lorne Campbell, J. Murray, J. N. Scott, A. Greig, and A. Muirhead. Sketch Book Committee—Messrs. J. Stewart, C. S. Burgess, A.R.I.B.A., and J. Jerdan. Syllabus Committee—Messrs. J. Traill, W. A. Mellon, and Fred Wilson. The Hon. President for the past session, Mr. Sydney Mitchell was elected an hon. member.

The first annual dinner of the Edinburgh Architectural Society was recently held in the Imperial Hotel, Market Street. The chair was occupied by Mr. Sydney Mitchell, the Honorary President of the Society; the croupiers were Messrs. A. R. Scott and J. A. Williamson, and among those present were Professor Baldwin Brown, Mr. Thomas Ross, Mr. J. Burnet, President of the Glasgow Institute of Architects; Mr. Tait Connar, President of the Glasgow Architectural Association. The Chairman, in proposing the toast of the Society, said he understood that the membership of the society was now very considerably over a hundred, which meant that they had practically exhausted the only source from which their membership could be drawn. The Society was one founded by Architectural students for Architectural students, and for them alone. The need for a Society of that kind seemed to him so evident that it was scarcely necessary to refer to it. All of them knew that the only practical means in this country of gaining a knowledge of Architecture was by entering the office of a practising Architect and becoming an apprentice. Whatever advantage that had, it had at least this defect, that it was impossible for the apprentices to meet each other—they only knew the men in the same office as themselves. In other professions the students had a common meeting ground, and their Society, he believed, would supply that ground for the Architectural students.—Mr. A. R. Scott acknowledged the toast on behalf of the Society. Mr. D. McLeod Craik proposed "Our Guests," to which Mr. W. Burnet responded.—Professor Baldwin Brown gave "The Town Council of Edinburgh," and spoke of the Corporation as the official guardians of the streets and buildings of the city.

Glasgow Architectural Association.—A meeting of this Association was held at the rooms, 187, Pitt Street, on Tuesday the 15th inst. Mr. Wm. Tait Conner occupied the Chair. Mr. Henry F. Kerr delivered a lecture, entitled "Notes on Elgin Cathedral." The purport of the lecture was to show what, in his opinion, had been the original disposition of the early Church, which he, the lecturer, had carefully studied for some years. From the standpoint of design, proportion, and detail, few of our Cathedrals can equal Elgin, and certainly none can excel it. The lecture was well illustrated with limelight views, and was terminated by a vote of thanks to the lecturer.

The Glasgow and West of Scotland Architectural Craftsman's Society.—The opening lecture of this new Society was recently delivered by the Honorary President, Professor Charles Gourlay, A.R.I.B.A., in the Andersonian Buildings, to an audience of about 150 past students and friends, the subject being "Paris from an Architectural Craftsman's Point of View." Mr. James Lochhead, President of the Society, presided. After a few general remarks on Paris, the Professor dealt with its system of sewerage, its methods of building practice in the materials of stone, plaster, concrete, iron construction, and parquet flooring. He then pointed

out the great advantages the Paris Architectural craftsman had in the admirable and excellently arranged museums of casts and other objects of instruction, to see which makes one ardently long for the completion of the new Art Galleries at Kelvingrove, where it is hoped that similar large and accurate casts will be placed for all to study by sketching and measuring. Lastly, the Professor showed that the history of Architecture could be studied with great success in Paris, because of the excellent remains of ancient and classic buildings to be found in the Louvre, and also in the buildings remaining till the present day, which show the Romanesque, Mediæval, and Renaissance styles very fully. The lecture was illustrated by a large number of photos. and diagrams, which were hung round the walls, by examples of French joinery, and by over 60 slides of Parisian buildings, which were well shown by the lantern.

The Civil and Mechanical Engineers' Society.—On the 10th December, the members of this Society paid a visit to the shot and lead works of Messrs. Walkers, Parker and Co., Limited, Belvedere Road, Lambeth. The party was conducted over by the engineer, Mr. Darling. The casting of the lead slabs and their conversion under the rolling mills into their sheets of lead was watched with special interest, together with the different processes used for drawing the lead pipes. The members afterwards visited the shot tower to view the process of shot-making from the commencement to the final packing for export.

Society of Engineers.—At the 43rd annual general meeting, held on the 14th instant, the chair was occupied by Mr. Samuel Herbert Cox, President. The following were duly elected as the Council and officers for 1897, viz. :—as President, Mr. G. Maxwell Lawford; as Vice-Presidents, Messrs. W. Worby Beaumont, J. Corry Fell and Henry O'Connor; as ordinary members of Council, Messrs. J. Patten Barber, Joseph Bernays, George Burt, D. B. Butler, H. S. H. Farrar, Percy Griffith, Charles Mason, and Stephen Sellon; as Hon. Sec. and Treasurer, Mr. Perry Fairfax Nursey; as Hon. Auditors, Messrs. Alfred Lass, F.C.A., and Samuel Wood, F.C.A. The proceedings terminated by a vote of thanks to the President, Council, and officers for 1896.

Views and Reviews.

CHRIST'S HOSPITAL:

Recollections of Lamb, Coleridge and Leigh Hunt.

THIS little book consists of memorials of their young school days extracted from the writings of Lamb, Coleridge, and Leigh Hunt, prefixed by an account of the first order and manner of the erection of the Hospital, and interspersed with 38 illustrations. It is very pleasant and interesting reading, connected with three well-known names in our literature, and the illustrations, copied from prints of the old schools and from sketches by Miss Florence Reason, add to its value. Mr. Johnson modestly terms himself editor; his work is well done, and many old and future Christ's Hospital boys will preserve the book in their cherished archives, and be grateful to him for collecting and presenting these records in so convenient a form.

CHRIST'S HOSPITAL: Recollections of Lamb, Coleridge and Leigh Hunt. Edited by R. Brimley Johnson. London: Allen.

MODERN OPERA HOUSES AND THEATRES.

Examples selected from Playhouses recently erected in Europe by EDWIN SACHS and ERNEST WOODROW.

THIS is a fine monumental book that is a credit to British taste and enterprise. The joint authors intend it as a continuation of the Atlas of Theatres, published by M. Coutant, at Paris, in 1842. Some monographs of individual examples, *e.g.*, the Paris Opera House, by M. Garnier, have been published; but no great collective "parallel" has been made for the last 50 years. The need of such a work had been strongly felt by specialists, both managers, lessees, and Architects, and the authors have, with Messrs Batsford's assistance, endeavoured, and we think with success, to supply it. It is quite up to date as regards illustration, the development of photograhic reproduction enabling authors and publishers to represent decorations, &c., in a manner that was impossible when M. Garnier first published his drawings. The introduction gives a clever analysis of the various classes into which theatres are divided, and all the more important examples in Europe, foreign as well as British, are included in the selection, with valuable critical remarks, and carefully prepared dimensions in each case. All the plates are drawn to a large scale, sufficient to shew every detail, and the photographic views of the buildings, interior as well as exterior, assist in giving a very clear idea of their arrangement. In addition, a parallel of sketch-plans of all the building is of great use for comparison. We do not like the manner in which, owing to the occasional insertion of an illustration in the middle of the rather wide page, the letterpress is divided into two streams between which the reader's eye must jump across from side to side with irritating fatigue, and mention this in hope that the authors will, according to the Arabian proverb, remember the reader. The plate of the ceiling in the Hofburg Theatre at Vienna, in particular, will serve to show perfecton of detail carried out in every part of this book. It is promised that the third volume will be a complete Treatise on Theatre Planning, with some supplements by experts on various practical details. Any treatise that will deal in a practical and exhaustive manner with the different multiform elements—the Auditorium or seeing place, with its boxes, stalls, pit, balcony, circles, &c.; the Access to (and *quick escape from*) each part of the house, with its internal and external stairs, corridors, outer balconies, &c.; the Saloons or lounges, with refreshment places, &c.; the Administration, with the ticket offices, check-takers' posts, &c.; the Orchestra, with its capabilities of expansion for occasional functions, &c.; the Stage, which, with the artists' rooms, constitutes a small world in itself, and the Workshops and Stores, for scenery and properties—showing how to place each element in its right relation *as regards position* to all the others, and how to weld the whole into one simple and easily understood plan—will be an addition to the common stock of knowledge in the world; and we hail the attempt. Fire prevention and the dealing with fires when they unhappily occur will be included; and we would also suggest a small chapter might be given on decoration and decorations, *i.e.*, the permanent Architectural and the temporary festal dressings which are required. We will return to this when the volume appears.

MODERN OPERA HOUSES AND THEATRES. Examples selected from Playhouses recently erected in Europe. By Ernest Sachs and Ernest Woodrow. London: Batsford.

Correspondence.

ON COMPETITIONS.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—Your article on Competitions in this week's number, prompts me to write and thank you for your protest in the cause of justice, and beg your indulgence for a few remarks, not so much on Belfast, Southamption, or Exeter, as on competitions in general.

While it is very certain that satisfactory results are improbable where the promoters are dishonest, yet it seems to me that, however honest they may be, unsatisfactory results are only too likely while competitions are conducted in the present manner. The whole question wants to be thoroughly threshed out, and if you would lend your aid in the matter, your would be furthering, not only the interests of the profession, but what is of far greater importance, the interests of Architecture.

What with unsuitable sites, insufficient money, and ridiculous conditions and requirements; a single assessor (where there is one at all) with fads, and possibly no theoretical knowledge or experience of the class of building he is expected to judge; a crowd of competitors who all have different ideas as to what Architecture is, and who send in designs in a dozen different styles; failure seems assured from the beginning. The wonder is to me that any satisfactory work of Art could ever have been produced under such conditions.

To begin with the question of site. The first thing necessary for a fine building is a fine site and suitable approaches. A town council is no more qualified to choose a proper site for a town hall than it is to judge the designs for the same; and until we have all sites for public buildings chosen or approved by qualified persons, we are always liable to be called upon rather to solve a puzzle than design a work of Art.

Then consider the question of assessor. However upright and impartial he may wish to be, it is very difficult in the nature of things for one man, unaided, to come to a just conclusion, and entirely sink his own personal tastes and predilections. The responsibility is too great for one man. Would it not be better to have a jury, chosen, perhaps, by the competitors?

Every detail of the management of competitors seems open to criticism, but I should trespass too much on your courtesy were I to attempt it. I would, however, just like to point out—that of the large sum of money you refer to in your article as spent every year by the profession—by far the greater part is paid away in assistance on the drawings, and so circulates from the elder to younger members, not leaving the profession at all. This is not altogether an unmixed evil, I think.

With all good wishes for the success of your new magazine, the Architectural Review.

Yours faithfully,

A. R. JEMMETT.

17A, Great George Street,
Westminster.
17th December, 1896.

SOME workmen who were sinking a well at Pear Tree Green, near Southampton Water, recently discovered what is believed to be a seam of coal. It is stated to be 18 inches in thickness.

THE heavy rain which accompanied the recent stormy weather caused several serious landslips in France. At Dieppe a large portion of the cliff at Bellevue gave way, bring about the destruction of the villa of M. Bamberger, the Paris banker. At the arsenal of Dieppe, the falling in of the adjacent cliff caused some old fissures round the building to spread considerably.

A LARGE meeting of ratepayers was recently held at Ilkley, for the purpose of getting an expression of opinion on the proposed Town Hall scheme, for which land has recently been acquired at a cost of £6,270, and on which it was rumoured that the Council proposed spending from £15,000 to £20,000 in buildings. It was resolved that the site selected was most unsuitable and to use every effort to prevent the scheme being carried out.

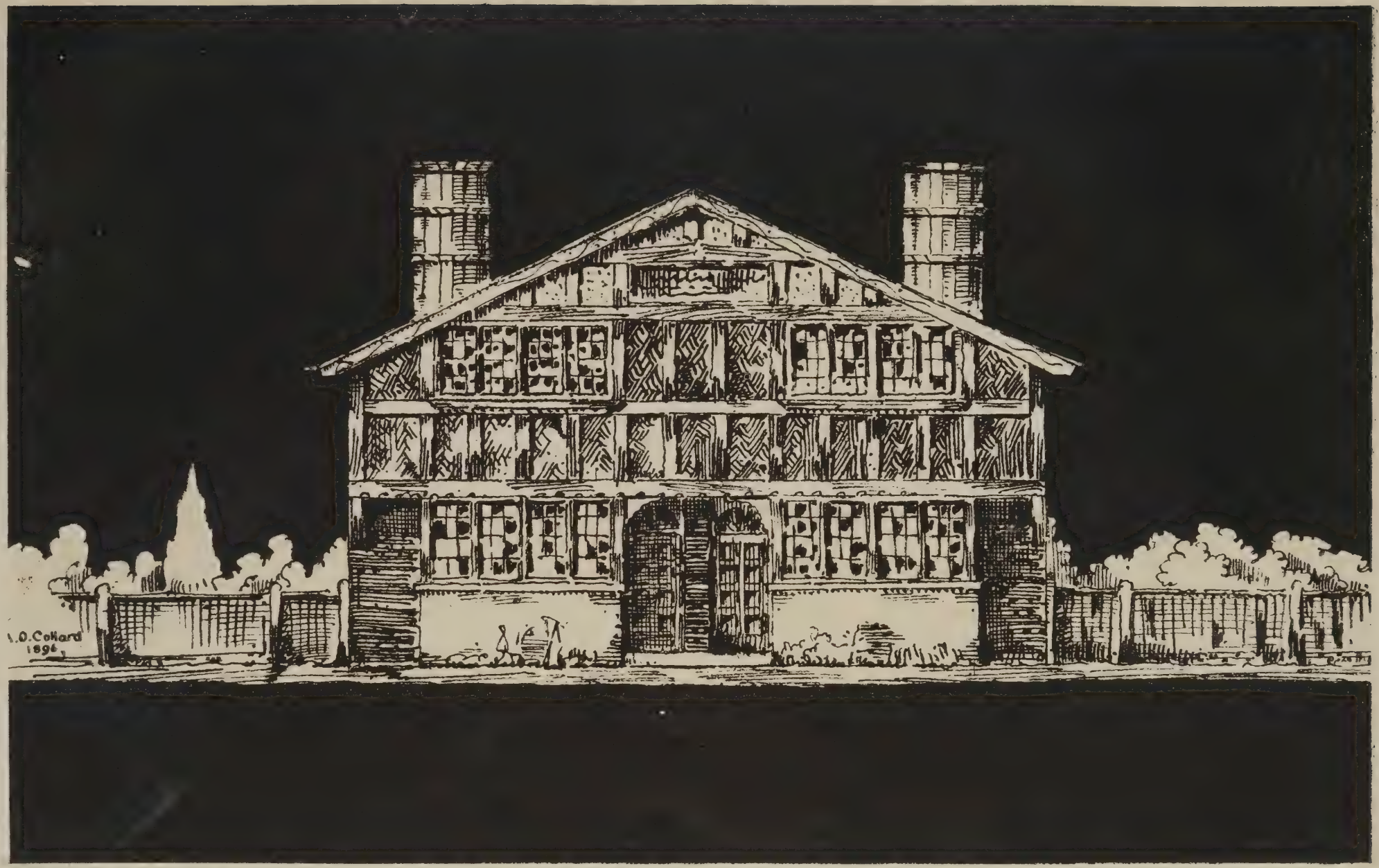
ACCORDING to Mr. Ernest W. Pierce, the Assistant Town Clerk of Leeds, the credit of initiating that class of legislation known as the public health laws belonged to Liverpool. The sanitary inspector was the person upon whose conduct the whole fabric of the law of public health depended. In the performance of his duties he would meet with many difficulties, and therefore he should make himself thoroughly acquainted with the duties he was obliged to perform.

THE Secretary for Foreign Affairs has received a dispatch from Her Majesty's Acting Consul-general at Christiania, stating that a notice has been published by the Norwegian Board of Works, inviting foreign as well as Norwegian engineers to draw up competitive plans of station arrangements for certain railways having their termini in that city. Four prizes, worth about £555 10*s.*, £222 4*s.* 6*d.*, £111 2*s.* 3*d.* and £55 11*s.* respectively are offered. Plans of intending competitors must be sent in before 2 o'clock p.m. on March 31st, 1897. Further particulars can be had on application to the Railway Office Board of Works, Victoria Terrace, No. 6, Christiania, where also maps and sections, &c., can be obtained on depositing 50 kroner (£2 15*s.* 6*d.*). Such further particulars as have been received may be seen at the Commercial Department of the Foreign Office, any day between 11 a.m. and 6 p.m.

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A BOATHOUSE ON THE SERPENTINE, BY A. O. COLLARD.



A PAIR OF COTTAGES AT ADDLESTONE, BY A. O. COLLARD.

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 99. **Wed., December 30, 1896.**

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Our Arts and Crafts. Now that the New Gallery is closed and the affair of the Arts and Crafts Exhibition ended for this occasion, no misinterpretation will be put on our words if we offer a criticism on the wider aspects of craftsmanship in this country as exemplified in the late collection of Art work in Regent Street. The whole motive and impulse of the Arts and Crafts Exhibition Society, and of kindred institutions and associations, and the spirit their activity inculcates, and the stimulus they give to private enterprise, are all of such great value and importance as marking a new era of Artistic activity after the deplorable lapses of the past seventy years, that it has been our endeavour to keep clear of any topic which might act in a prejudicial way against the Society or its exhibition, or alienate any of our readers from sympathy with its motives. It is clear, however, that a large number of those designers who showed work at the late exhibition, have fallen into one common error; nor is this a fault of technique or expression merely (though such were common enough in individual instances), but an error embracing the interpretation of the whole meaning and value for us of mediæval Art. These exhibitors have identified themselves with mere imitators of the feeling of past Arts; they have, at their best, but copied the spirit of the mediæval craftsman and the forms and technicalities of his work. This is stating the case generously for the exhibitors we are speaking of—granting them their highest achievement of feeling. A great many of the exhibits, while owning to an origin in the work of the fourteenth and fifteenth centuries, revealed no impulse from the spirit of the age they copied, but showed only an ingenious adaptation and rearrangement of its characteristic forms. Now it is beyond all reasonable question or dispute, that an applied Art can find no just or adequate appreciation apart from a recognition of the circumstances under which it flourished. The great and irresistible charm there is for us in the work of mediæval craftsmen—a charm which still stands, though the particular example may lack the elements of beauty—lies in that vibration of human sympathy, which is awakened whenever we recognize the fond work of man's hand and eye, inspired by dead sentiments and enthusiasms. The whole beauty and meaning of an applied Art must lie primarily in the truth with which it idealizes and interprets the life of the nation. The Art of a cult is meaningless and contemptible. The craftsman is not he that sits in a museum and reconstructs with the forms and feelings of past epochs in man's history, but he who can idealize about the wants and necessities of the day in which he



EXETER CHURCH COMPETITION. SOUTH ELEVATION OF MESSRS. HEATON AND RALPH'S DESIGN.

lives. This is the one exalted privilege of handicraft. It is strange in these later years, when so much is said and written on the subject of the past Arts, and all educated men and women aspire to some understanding in the matter, that the one vital lesson which is taught alike by every Art the world has seen, yet remains ignored of the generality. What sort of regard is this present period of handicraft to win of posterity? Picture the antiquarian of 1996 considering upon the drawing room fire screen painted with saints and halos, and the piano with the garden gates to it! The whole subject is certainly one that could only be adequately treated of in an essay of some considerableness. But to conclude now: assuredly we may consider we have an epoch in Art only when motor carriages, telephone stands, electric switches, gas stoves, and the other paraphernalia of our approaching twentieth century existence, are attentively shaped and decorated to an idealised expression of the particular artificial life of their day, and when our English craftsmen can leave their reproduction of mediæval inspirations, and acknowledge the facts of their own existence. Then, and not till then, will they be following the path that leads to that excellence and truth which they so devotedly reverence in the work of past ages. But before that day there must come a change. In no period of the history of the world's great Arts, did Art exist, as now, in the person of a precocious imp running about and crying, "Look! Look at me; I'm Art, I am."

THE RESTORATION OF PETERBOROUGH CATHEDRAL.

IS IT VANDALISM?

THE recent energetic move on behalf of Peterborough Cathedral, on the part of the Society for the Protection of Ancient Buildings, is worthy the sympathy and support of all Artists. There is no more chivalrous servant of the public existing than this Society, whose prompt action has often been the means of preserving many a priceless treasure of the past. Their energies were never exerted in a better cause than the present one, and never in one which required more ability, knowledge, and perseverance persistently applied against the prejudice and muleish obstinacy of a handful of men than against those who so unfortunately have the care of Peterborough Cathedral committed to them.

When we first heard the facts of the case, and after we had personally examined the Front for ourselves, we were inclined to take an aggressive attitude towards the proposals of the Dean and Chapter, and were entirely in sympathy with those by Mr. Webb. We think the former too sweeping and destructive in principle, and that they have but little regard for Art and history. There is some talk of a compromise. If a *via media* can be agreed upon between the Society and Mr. Webb, on the one hand, and Mr. Pearson and the Dean and Chapter on the other, by which they could travel together, and finally arrive at the goal which would give the maximum of sure and sound repair, with the minimum damage to the Front, both as regards its Art and its history, there will be found no more hearty supporters of such a way out of the difficulty than ourselves. But it is well to remember that at present there is a wide difference between the two schemes. The one means practically rebuilding: that is to say, when completed it would be, to all intent and purposes, a modern Front on the old lines. The other, that proposed by Mr. Philip Webb, on behalf of the Society, is better described as repair, and would leave the whole of the Front *practically untouched*. Between the two, therefore, there is now a great gulf fixed, and the bridge to join them will have to be constructed not only with great skill, delicacy, and care, but with a generous disposition on either side to give and take in the question of its building in a somewhat ample way. Although we cannot by any means agree with what Mr. Pearson has already done at Peterborough and elsewhere in the way of restoration, we are sure he has never been influenced by any but what he is convinced are the most rigid Artistic principles. No Architect would dispute that. It is, therefore, surely something bordering on the ridiculous to say, as the Athenæum did, that "a piece of Vandalism is likely to be committed at Peterborough, the like of which has not been seen since Lord Grimthorpe's doings at St. Alban's." Exaggeration of this kind weakens an otherwise strong argument against Mr. Pearson's recent proposals. We have very carefully compared both the plan of Mr. Pearson's restoration and that of Mr. Philip Webb (more correctly described as "repair"), and we unhesitatingly say the one of Mr. Webb is by far the best. It is best both constructively and Artistically, and above all, it is the best because it will leave the exterior of the West Front *practically untouched*. The genius and skill of Mr. Webb is admitted in the Architectural world, and the Dean and Chapter of Peterborough would do well to read, mark, and learn this opinion most carefully, before they sanction any scheme which has for its basis the rebuilding of such a priceless Artistic treasure as this wonderful West Front. It is well to emphasize the fact that it is incomparably the finest work of its date in England, and comparable only with the greatest achievements in the Art of Architecture of the ages. If there ever was an occasion for prompt and energetic measures it is surely the present one. The work of rebuilding has already been started; the whole of the Front is at present enveloped in a maze of scaffolding, and the preliminaries of under-pinning (necessary, however, in any case) are in active progress. Unless, therefore, immediate action is taken the damage will be done and done beyond recall. The appeal for subscriptions has been sent out long since, and here we may incidentally remark upon two things: (1) that as Mr. Webb's scheme is to attack the trouble from behind (leaving the façade practically untouched, and bonding it into the new masonry at the back) it is evident, therefore, it will be less costly, although it is true this is but a small matter in so great a question; (2) that the subscribers themselves have really the matter in their own hands. They have only to agree to unitedly support the new scheme and the Front is saved! Should, as we sincerely hope, the better of the two schemes prevail, then we repeat the thanks of the public are due mainly to the strong action on the part of the Society for the Protection of Ancient Buildings, to the Daily Chronicle, which has published a strong letter on the question from the Architectural Review, and a warlike letter from Mr. Ruskin appeared in the Times, which, although it was not actually written by him, contains the evident inspiration of the Master in what might be his own words. It is most pleasant to note that his letter coincides with that of the Architectural Review, more exactly as to the way in which the Front can be preserved.

Should the work of rebuilding be the outcome of it all, then it is well to bear in mind that the responsibility of such ruthless destruction rests primarily upon an indifferent and very ordinary Dean and Chapter, and upon the Editors of The Times and The Builder. The unhappy attitude the latter paper takes towards the subject is regrettable in the extreme, firstly, because it shows but little knowledge of the subject, and, secondly, because, with The Times, it shares the unenviable position of being vandalism's special pleader. That unclean spirit never had a better advocate than The Builder, and, it is but just to record, it has for once in a while a perfectly honest one. For whilst the Dean and Chapter labour very hard to prove the reverse of their intentions, the "Editor of the Builder" calmly gives their whole case away, and says, "the common sense of the matter is to rebuild from the foundations" (see letter to Times). He tells in plain English what everyone (who cares) *knows* to be the end the destructionists have in view, but we fancy the Dean and Chapter would wish to be spared from their candid friend, especially before the funds are in. Such revelations as these are very awkward.

THE Liverpool Insanitary Property Committee have decided to ask for £30,000, during 1897, for the purchase and demolition of insanitary property, and £10,300 for the completion of labourers' dwellings.

EXCAVATIONS AT THE CHURCH AND MONASTERY OF GREY FRIARS.

EXCAVATIONS on the site of this monastery were begun some years ago, and numerous walls were unearthed about two feet below the surface, but ancient walls crossed more modern structures, making the task of arriving at the exact plan of the monastery very difficult. No trace of the Church was found until Mr. C. B. Fowler, F.R.I.B.A., of Cardiff, under whose superintendence the work has been, and is being, carried on, commenced trenching on the south side of the monastery, and then, at a depth of about 2½ feet, the angle of one of the nave pier foundations was unearthed. This led to further excavations, with the result that now the whole plan of the Church has been laid bare, together with mouldings of arches, labels, caps and columns, window heads, jambs and mullions, &c., sufficient to give a very clear idea of what the Architecture of the Church was like. The Church is about 180 feet in length by 62 feet in width, and consists of nave, north and south aisles, and a large chancel about 30 feet wide. The connection between the Church and the monastic buildings has not yet been discovered. Many skeletons—over 30 in number—have been unearthed inside the walls of the Church and on the south and west sides outside. Many of them are in a very perfect state of preservation, the teeth being almost perfect and thoroughly sound. The skeleton found in the centre of the chancel was interred in a coffin, the remains of which were visible, and the arm-bones were placed as if in prayer. In 1538 the Grey Friars' Monastery surrendered to the King's Visitor, and the list then drawn up of the conventual property shows that it was of small value. The Friars signing the surrender were—Thos. Gwyn, Guardian, Roland Jones, Owen Jones, Robert Castell, Richard Mellyn, Hugh Sawyer, John Brown, Wm. Barler, and Garwain Johns. They delivered their goods to the bailey's deputy, John Loveday, and the visitor appropriated the most valuable articles. (King's Remembr. Books.) In another document Cromwell is informed "that the Black and Grey Friars' houses at Cardiff have no substance of lead save only some of them have small gutters." This kind of plunder, therefore, supplied but little to the Treasury. Owen Glyndwr was very fond of the Franciscans or Grey Friars, and refrained from destroying or pillaging their convent in Crockherbtown when he sacked Cardiff, but he seized their valuables, which they had lodged for safety in the castle. It is also said that Llewelyn Bren (the Welsh rebel) was buried in this Church, under a tomb on which was his effigy carved in wood; also that Fitzhamon, who was hanged, was also interred here. It is surprising what little is known regarding this monastery, which must have been a very extensive one. The little found is of interest, and add some particulars of the order of Franciscans or Grey Friars which Lord Bute has been the means of preserving to history. The walls will be built upon the old foundations in buff and grey bricks, 18 inches above ground, in a similar way to the Black Friars' Monastery, which is now completed.

IT is not generally known that Mrs. G. F. Watts, the wife of the great Artist, is very expert in moulding. She has decorated the ceilings of Limnerslease, the Surrey home of Mr. Watts, with charming designs.

A MOVEMENT is on foot in favour of the erection of a new bridge across the river at Fulham, so as to relieve the traffic of High Street and Lillie Road. The necessary powers were granted by Parliament many years ago, but never acted upon.

THE foundation stone of a new residence about to be erected in connection with the Mansfield House University Settlement, Canning Town, has been laid by the Master of Balliol, Dr. E. Caird. Principal Fairbairn is the President of the Settlement. The new building is expected to cost £8,000.

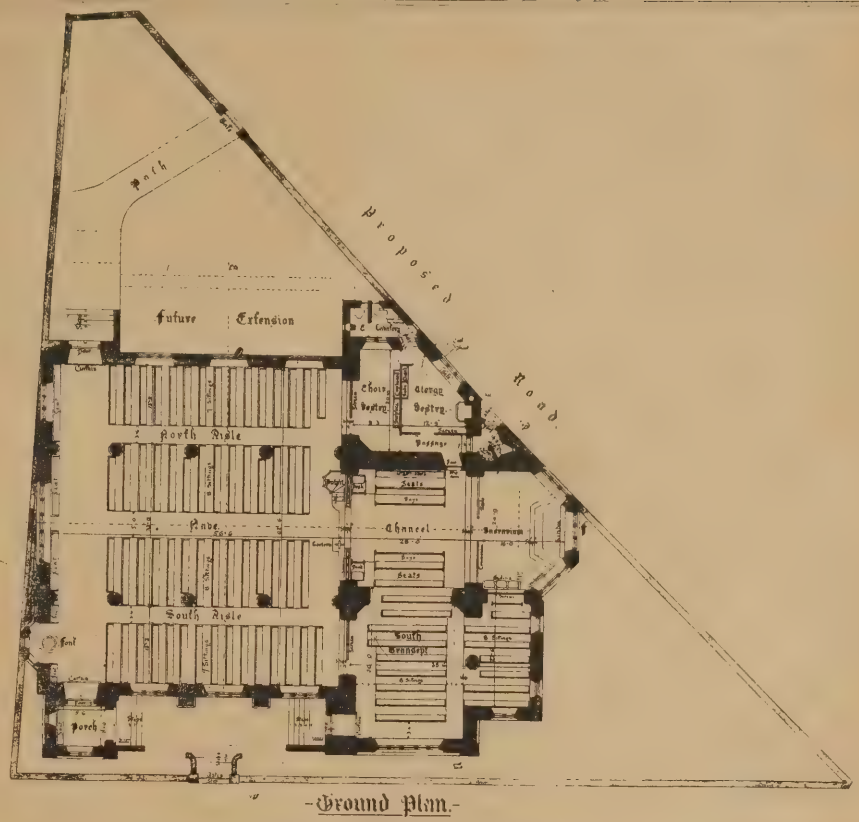
THE old and interesting Church of South Leverton, near Retford, has been badly in need of restoration for a long time. The amount required is £2,000, but up to the present only a little over £1,000 has been raised, and as the nave and tower are in a very bad state, the work is to be proceeded with at once.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

The Exeter Church Competition Fiasco.

A CRITICISM ON SOME OF THE DESIGNS.

AT the risk of repeating what every one knows, a brief recapitulation of the circumstances of this competition seems desirable. Early last year advertisements appeared in all the professional papers, asking Architects to compete for a proposed new Church in the district of St. Thomas, Exeter. Nearly six months were allowed for making the designs, and on the face the conditions seemed fair, and the four premiums—one of £100 and three of £25 each—liberal. Many questions were asked by competitors, and the committee very properly issued supplementary instructions in March, answering them. Although the site is a difficult one, it is interesting in its capabilities, and is quite large enough for what the committee appeared to require—a good-sized town Church. Consequently, the enormous number of 420, or as some say, 450 designs, were sent in on the first of June. In the original instructions the committee said they would call in the aid of an assessor, if they deemed it necessary, but in the supplementary instructions they were more definite, and stated that "the committee will call in the aid of an assessor, to advise them before making their award." This undertaking on the part of the committee was, no doubt, one of the principal reasons that induced so large a number to compete.



-Ground Plan.-

MESSRS. HEATON AND RALPH'S PLAN.



EAST ELEVATION OF MESSRS. HEATON AND RALPH'S DESIGN

Nothing further was heard beyond the announcement that over 400 designs had been received; there were also rumours of an exhibition being held in Exeter, though whether public or private did not transpire. In October a circular was received by each competitor announcing the four awards made by them, acting on the advice of Mr. B. Ingelow, F.R.I.B.A., their assessor, nominated by the President of the Royal Institute of British Architects. The names of the four gentlemen who had the distinguished honour of being the best quartette out of the total number, were, with the exception of Messrs. Cutts, not known to fame as Church Architects. If, however, they were really the best, Architecturally and ecclesiastically, then the award became only the more satisfactory.

Alas! this illusion was soon dispelled, so far as regards the selected design, when it was published in that respectable paper, The Builder, on November 28th. We all knew then that someone had blundered. It is incredible that Mr. Ingelow could have seen *all* the designs and placed so poor and mediocre a production at their head. The committee state in their circular announcing the awards, that "it will be impossible for them to undertake any correspondence concerning the awards, neither can they answer any question relative to the competition now closed." Their procedure in the matter is, therefore, being exposed in this paper in the interests of the enormous number of unsuccessful competitors. Surely, in common fairness to them, it is not too much to ask that the assessor's report should be published, and the number of designs examined by him made known! Is our senior Architectural body too senile to notice the continued and crying abuses of Architectural competitions? If dignified silence is the only response to this appeal, it must be conceded that the Institute's own assessor either saw but a small proportion of the designs submitted, or his appreciation of Church Architecture is limited to the cast-iron style in vogue some 20 or 30 years ago; a conclusion everyone would be loth to come to.

To back up these statements, plans and perspective views of a number of the unsuccessful designs are published in this number. They are chosen at random, and there may have been many sent in that are more suitable, but surely any one



DESIGN FOR
EMMANUEL
CHURCH
EXETER

BY
P. A. ROBSON
WESTMINSTER.

of them is much better, Architecturally, than the selected design.

That by Mr. Robson is interesting in that it is probably differently placed on the site to the majority; the Church being parallel with the side street instead of with the main road. A picturesque grouping is thus obtained from the Okehampton Road. The type of Church is strictly English, and in the traditional and indigenous style of the district, late decorated, but treated in a modern spirit. The materials were intended to be local red brick, with Beer-stone dressings, the walls internally being plastered. The roofs are of the local "cradle" type, of red deal, boarded. A somewhat striking feature, internally, would be the nave arcade running through the transept, with pierced openings over. The floor is kept well above the ground level, thus enabling an excavated heating vault to be dispensed with, a most useful precaution on so damp a site.

The cost of the Church, omitting certain suggested extensions, was estimated at £6,000, the tower, chapel, west gallery, and baptistery amounting to £4,700 more, and heating £155, the total cost thus being £10,855.

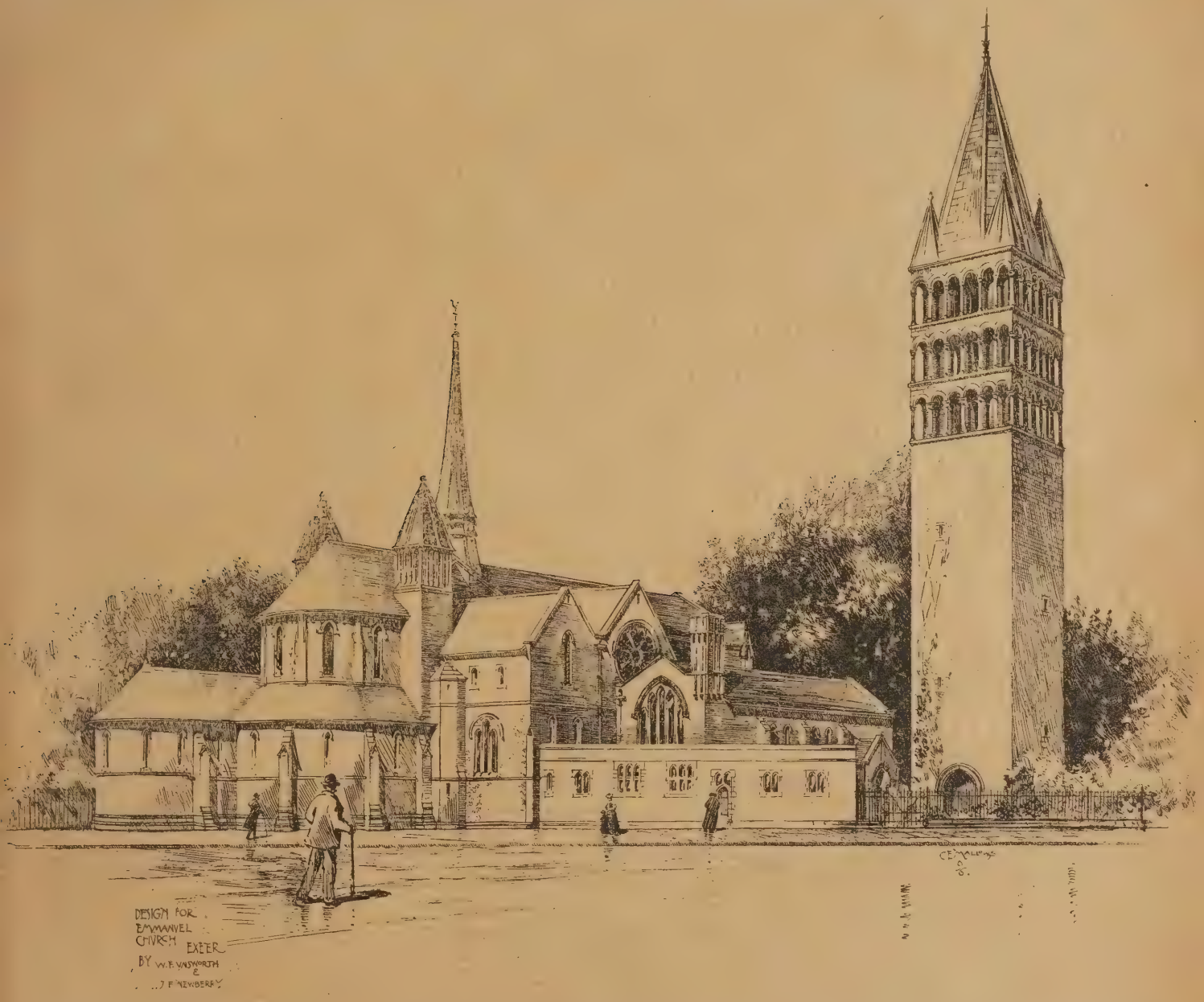
Messrs. Unsworth and Newberry's design is also a brick Church, with stone sparingly used, but is an adaption of a more early manner. The acute angle of the two roads seemed to suggest an apsidal termination, and this gave the key to thirteenth-century treatment. The Church is placed parallel and as close as possible to the main road, in order that the length may be taken full advantage of and the building orientated as nearly as may be. The suggested extensions were the outer north aisle, the morning Chapel and the tower. The wide nave and double aisles make a very spacious Church which would lend itself well to colour decoration. The sanctuary, ambulatory and Chapel were intended to be vaulted in brick with stone ribs. The tower is quite detached from the Church on account of the settlements that are sure to ensue if any extra weight is put on so treacherous a foundation as the site possesses. Although a large Church the authors estimated the cost, without extensions, at £6,000, basing their calculations on similar plain brick Churches. The total cost, without the tower, amounted to £7,724.

The design of Messrs. Heaton and Ralph is on more orthodox lines than the other two we publish this week, that is to say, it follows more or less closely on Gothic tradition. But if the general effect is rather "Geometrical," the whole design is uncommonly well worked out in detail, both in plan and external treatment. The tower, for example, has a well-proportioned upper part and the arrangement of the parapet is good, showing some feeling for the value of plain spaces, and a recognition of the uselessness of reviving dead forms. The external treatment of the south transept of the south porch is interesting and fresh in feeling. We do not, however, care very much for the treatment of the eastern termination of the chancel which is the most unsatisfactory part in a design otherwise creditable to its authors. They have, however, kept within the stipulated limit, although their design, we imagine, would prove a more expensive building than many of the others. The materials were coursed rubble for the main walls, with ashlar dressings.

KEYSTONES.

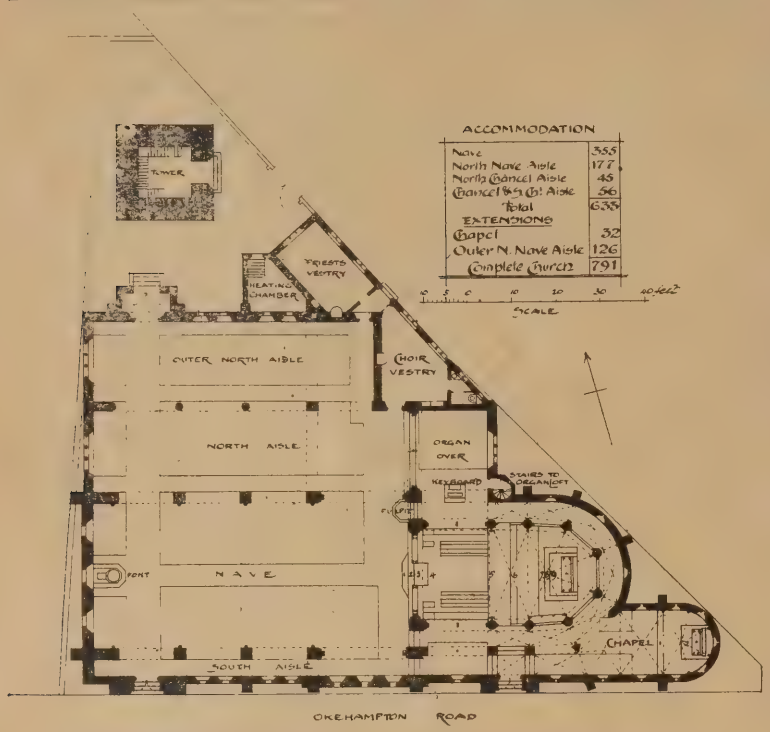
WE are pleased to acknowledge our indebtedness to Mr. Charles J. Heathcote for measured work, which we have been able to reproduce from time to time, of Tintern Abbey, Ledbury Church, Hereford; the Cloisters and Lady Chapel, Bristol Cathedral; Hereford Cathedral, and St. Chad's Church, Lichfield.

THE Indian Government has just placed with two Staffordshire firms an order for 120 miles of wire fencing. This is believed to be the heaviest order of the kind that has ever been given out by a Government Department. The barbed wire will be supplied by a North Staffordshire firm, and the iron rails by a Wolverhampton firm, who, in order to complete the contract, will be kept busily employed until April.



MR. OWEN MORRIS ROBERTS, Architect, well known in North Wales, died recently at his residence at Portmadoc after a long illness. The deceased, who was 63 years of age, had been entrusted with the designs of many important public buildings and Chapels in Anglesey and Carnarvonshire and Merioneth, and was the Architect for the proposed country buildings for Anglesey.

SOME Yorkshire antiquarians have been taking a new though merely academic interest in tithe-barns. Bolton Abbey is said to possess a very fine specimen. There is also a remarkable mediæval barn at Easington, near Spurn. The massive pillars which support the heavy oak roof are composed of trunks of oaks, standing on boulders obtained from the neighbouring boulder clay.



EXETER COMPETITION. MESSRS. UNSWORTH AND NEWBERRY'S PLAN.

MR. ALFRED WATERHOUSE, R.A., AND THE TECHNICAL SCHOOLS.

PRIZE DISTRIBUTION AT THE POLYTECHNIC.

THE prizes and certificates gained during last session by the students attending the Architectural and Engineering Section of the Regent Street Polytechnic Technical and Continuation Schools, were distributed by Mr. Alfred Waterhouse, R.A., on Tuesday evening, the 22nd inst. Considerably over a thousand students had attended the section, and of this number something like 600 had gained prizes or certificates. The result was, in fact, signally successful, for not only has a large percentage gained reward in the shape of prizes or certificates, but many important posts have been secured by the students. Amongst their chief successes may be noted:—R.E. Asst. Surveyorships, seven places; Admiralty, one, a valuable post with a commencing salary of £180 a-year, rising to £500; Academy, two; Surveyors' Institute, three, including first place and prize, 1895; Preliminary Examination, R.I.B.A., twenty-nine, including three for the final Associateship; South Kensington examination in geometry, 1st class honours with medal, and the first place in England in advanced geometry; Architecture and Architectural Design, many passes, two students earning a special report from the Examiner on the consistent treatment of their designs. The students have also secured two London County Council Scholarships at the City and Guilds examination in carpentry, plastering, brickwork and masonry, while twenty-four medals, granted by the Carpenters' Company, have been gained, including one gold and seven silver ones. The consistent and steady work of many of the students has resulted in their obtaining valuable appointments at home and abroad, including several government assistant surveyorships; assistant engineer to the Admiralty, surveyor to the Prisons Board, and to the War Office (Architects' Department, &c.). Many of the students are doing well abroad, in the colonies especially; amongst others, A. W. Christie, who went to South Africa as an Architect, won the £100 competition for the design for a town hall at Salisbury; F. H. Pearse, who had a good deal to do with the building of Buluwayo; and several also in Johannesburg. Mr. Ross, after having filled a post as surveyor in Norway, is now under an engagement for Brazil. The post of chief assistant in one of the largest Architectural offices in Dublin has also been obtained by one of the members. The engineering classes generally have achieved a suecess hitherto unattained, both in the number of attendances and successes gained. In opening the distribution proceedings the Secretary mentioned that the Technical Education Board had added

A THEATRE AND A LABORATORY

to that institution during the past year, and commented on the fact that whereas the number of students in the Architectural and Engineering Section a year ago was 1,000, it now was 1,619. Mr. Waterhouse was then called upon to distribute the prizes and certificates, but before doing so he said that when he accepted the honour done him in inviting him to make that presentation, he was told that he would not have to make a speech. But he found that he had something more to do than make a speech; he had to hand out no less than 600 marks of distinction to those who had taken a foremost place in the studies of subjects allied with Architecture and Engineering, which studies were prosecuted with so much success in that hive of instruction. He ventured to take the opportunity of congratulating the students on the facilities which were afforded them of obtaining sound instruction in that home of the liberal Arts, and of congratulating its founder and its very efficient band of Professors also, on the success which had attended their enterprise and endeavours—a success most extraordinary. On visiting the Architectural classes he was much gratified in observing the lucid thoroughness of the instruction imparted to the students, and could not help contrasting it with the state of affairs half a century ago, when he was what most of them were then—a student seeking for instruction in Architecture. But he was unable to obtain anything like regular instruction, picking up a crumb of knowledge here and there whenever possible. Now, however, everything had changed and for the better. The student of to-day only wanted a certain amount of enthusiasm, a determination not to allow the pleasure of to-day to interfere with the success of a lifetime, and a resolve never to mis-spend an odd five minutes if they could help it. If they had this determination, ultimate success was sure. But they were not all prize-winners, and to those who had been unsuccessful he said—Never mind, only persevere; a little more effort, a little more patience, a little more determination, and they would succeed. Lastly, he would say to the Architectural students, make up your minds to pass the examinations of the Royal Institute of British Architects. They had candidates going there from all parts of the country, and he hoped the students there would show what the Polytechnic could do for them. They owed this to the institution and to its indefatigable Professors, as well as to themselves. The awards were then handed to the successful students, and, the long ceremony over, a programme of music given by the Polytechnic select choir and other artistes was gone through.

Our Illustrations.

A PAIR OF COTTAGES AT ADDLESTONE.

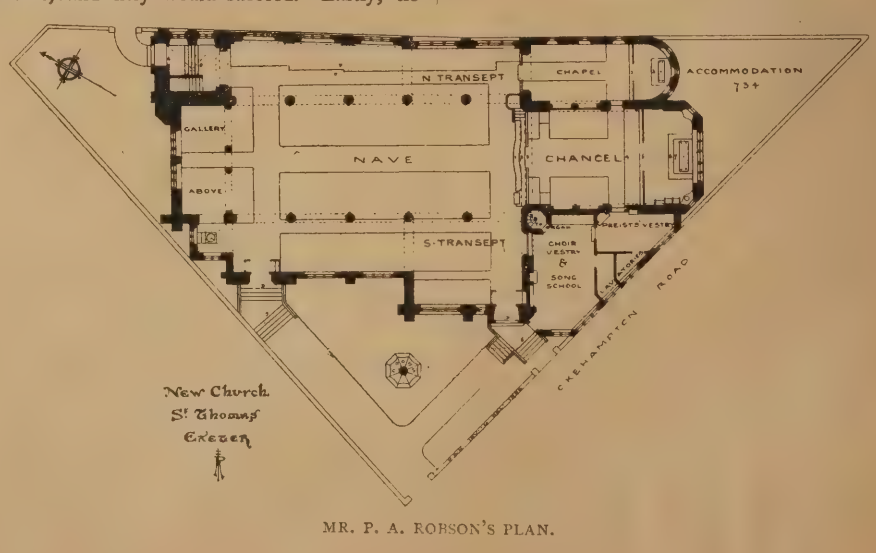
A BOAT-HOUSE ON THE SERPENTINE.

THE two black-and-white sketches, reproduced in this issue, show a partial development of a notion for illustrating, Architecturally and to scale, elevational and other drawings. Beautiful as many perspective drawings are, there is yet often a suppressed doubt, to the Architect as well as to the layman, as to how far a perspective may truly represent the actual or proposed building in ascertainable dimensions. It was this objection, as well as a desire to test the possibility of giving an impression, uninfluenced by the usual killing abundance of white, as usually permitted in black-and-white drawings and perspectives, that caused me to make these and other sketches from some of my own work.

The sketch of two cottages is drawn in pen-and-ink on paper, with the blacks brushed in; and the boat-house is drawn in wood-stump and ink on vellum—this stump work being a substitute for pen or pencil, adopted by Mr. Rudyard Kipling's father, in some of his Indian drawings in South Kensington Museum. A balance of white and black, and their proper distribution, makes an interesting problem, and the use of circumstantial advantages in the way of trees, hedges, fences, and even the conventional treatment of the water behind the boat-house, adapt themselves to treatment. Such questions have been put, as, "Where has it been done before?" "What gave the idea?" "Did Beardsley's drawings suggest the liberal use of a blacking brush?" How is it possible to say? Whether the idea be as old as Canterbury Cathedral, or newer than New Scotland Yard, it seems to me to have possibilities worth developing.

A. O. COLLARD.

[NOTE.—We do not necessarily identify ourselves with Mr. Collard's opinion, and we publish these sketches as we think they are interesting as experiments. Personally we are conservative enough to still prefer the perspective. Elevations, even when treated in this original way, can never give anything approaching a correct impression of a building, for the simple reason that, as everything is perspective, a purely elevational drawing must be false.—ED.]



MR. P. A. ROBSON'S PLAN.

Pictorial Architecture.

DISCUSSION AT THE LAST MEETING OF THE A.A. ON MR. R. SHEKLETON BALFOUR'S PAPER.

(*Concluded.*)

Mr. H. W. Lanchester, who opened the discussion, said, he thought that when Mr. Balfour brought them to the meeting, it was very likely to criticize the works of the painter and gloat over his delinquencies, while they congratulated themselves that they were not as other men were, and knew their work far better than the painter did his. It was very gratifying to find that Mr. Balfour had reserved his hardest knocks for themselves, to bring them to a sense of their responsibilities by reminding them that their own delinquencies were much more difficult to mend than those of the painter, who, after having accidentally made some Architectural blunder, was able to rectify it by a few strokes of his brush afterwards. He (the speaker) had only one criticism of a general character to make, and it was this: it did not appear that Mr. Balfour had quite entered into the spirit of the modern painter. Mr. Balfour had said that painting was decorative. He thought that was distinctly one-sided. Painting used to be decorative and many Architects said it ought still to be decorative. But he was not quite sure that it ought to be decorative, although it had been so for centuries past. A sort of short-sightedness had come over the world, he thought. They did not take things in that placid, easy way which their forefathers assumed. When they saw a painting in a room, they did not consider what part it played in the decoration, but at once began to silently criticise it. True, the painter did not intend them to consider his work only as it affected the general decoration of the room, but desired their honest consideration of that work. The painter desired to fix one impression upon them, and, if powerful enough, he succeeded, quite apart from the question of general decoration. He was not arguing that when a painter draws a picture he should not present his Architecture correctly, any more than he should present a figure incorrectly; it was only on the point of

PAINTINGS BEING DECORATIVE

that he was speaking. Mr. Balfour had quoted Morris, and he (the speaker) remembered having seen in one of his books a picture suggesting a possible placid existence on this earth, and after drawing the picture, Morris says, "it possesses little attraction when the present-day spirit of stress and concentration was considered." That expressed, to some degree, what the speaker meant as to the different attitudes painters take up now to what they did when painting was the handmaid of Architecture. Turner apparently did not attempt to make his paintings strictly decorative, as the word expressed embellishments, for it always seemed to him (the speaker) that the word decorative meant to embellish something. The two were quite apart, and there was no doubt that a very strong emotional impression was conveyed by combined Art or one phase of Art, however pure and simple, entirely divorced from any other Art. Music and painting, for instance, painting and Architecture, or music and the scene at the opera. He did not think that any painter could possibly feel anything hurtful by knowing thoroughly the basis and development of any work he might use in his painting. The painter had to construct the Architecture within certain limits, and he ought to acquire such knowledge as he felt would be desirable in the execution of his painting. The painter who depended merely upon tone or line, who merely used certain forms as suggestive of certain colour, in giving a representation of any object embodied certain emotion, and not through borrowing from any other Art. He might get suggestions for Architecture, and, of course, if he used these suggestions, he must know his Architecture thoroughly, but beyond the point to which he intended to carry his composition, it did not seem to the speaker that his knowledge need extend. Of course, as regards decorative painting, there could be no doubt to a man who knew the Architecture with which his painting was to be brought in harmony, would be very much more likely to produce a general result than the painter largely ignorant of a subject. Mr. E. Greenop said he wished to second the vote of thanks which he knew Mr. Lanchester intended to propose, for Mr. Balfour had given them a most interesting paper. Mr. Balfour had said that a painter could not suggest Architecture unless he understood it. He thought they would all agree with that; the painter could not suggest anything unless he understood it. This was a point he had seen strikingly exemplified once in going through an Art gallery. In one of the pictures was a violin, and he would undertake to say that no man ever saw such an abomination of a violin as it was, though he had no doubt the Artist had a violin before him in painting his picture. The bridge was about an inch out of position, which, in a violin, meant about forty-five per cent., and the head was twisted round as though it worked upon a hinge. Mr. Balfour had said that

TURNER WAS A TRUE IDEALIST

of pictorial Architecture. About this there might be a difference of opinion, but as Turner had been mentioned others should not be forgotten. Old George Barratt had not the advantages of Turner, but some of his compositions were full of poetry. Prout and Bonnington, too, ought to have been mentioned, together with other men whose Architecture was most beautiful. The Architecture of Albert Goodwin, he thought, was full of poetry; some of his compositions constituted what they might call an Architectural dream. Then, again, there was John Fulleylove and Harry Heim, with whose Architecture he did not think much fault could be found. Careful work was absolutely necessary to a painter, to prepare him for his richer work. He had always understood that some of our greatest painters had returned periodically to sharp point work, drawing the detail with the greatest accuracy, in order that they might not lose their exact precision as the result of constant work on their larger drawings. He had great pleasure in seconding the vote of thanks. Mr. J. Pennell said he had not much to say on the subject, because he was not an Architect. But he could assure Mr. Balfour that if he went among illustrators they would show him a few points concerning the branch of the profession as he had given them hints on his own branch. He could not help saying what had so often been pointed out, and which was equally applicable in the present instance, and that was—workers could not get away from their own profession in these discussions. Our own profession is the great thing: it is *the* profession, and other professions had nothing in common with us. We fail to grasp that we are

ONLY PART OF A GREAT ART,

and that those of us who are humble illustrators have some sort of interest in Architecture and really care about it. Although a man may not draw out all the details he sees, or thinks he sees, at any rate he is trying to express something. A great deal had been said of decorative painting. They did not mean decorative painting when they spoke of decoration. What they meant was "convention." If they looked up the works of William Morris, they would find that he said things were only decorative up to a certain period. He meant only "conventional." Take book illustrations. Nothing was decorative. What he meant was that nothing was "conventional." If they took the paintings of Turner, he could not see where the Architecture came in. He might be wrong, and was willing to admit that he did not pretend to know anything about Architecture, but he could not see why they would not admit that there were other kinds of decoration. For instance, colour, tone and line. The beauty of colour may be just as decorative as any form of outline or convention, for "convention" was what they meant. The word "decoration" had obtained a significance in England which it possessed nowhere in the world. In France or Spain they would find that the people spoke of great pictures as being decorative because they were in colour and contained no lines at all. If they looked at the work of masters like Rossetti or William Morris, they would find they had arranged their pictures with those conventional lives which were decorative from their point of view, and they had arranged them with the work, or at any rate to fit in with the frame in which they were hung. He knew that many painters brought their pictures up to the frame; the frame was considered a part of the decoration just as much as the work it bounded. He had never seen so much bad perspective and Architecture as that contained in the works of Turner in his younger days, and in many great works they would find no expression of Architecture at all. Many pilasters and so forth were painted to make the representation something like a building. But if a building exactly similar to that in the picture existed in reality, and would stand erect, he should be very much surprised. Then as to the one-sidedness of the Architect. Anybody who knew his subject mechanically could always find a painter in the wrong in every case. Personally, he had never tried to do anything in all his life but some one had gone to him and told him it was absolutely wrong. It probably was, and he did not care a bit. It did not make any difference. If an object looked like a bicycle, there it was, they could accept it as a bicycle. It was not the painter's business to give every object with Architectural precision, and he must not be expected to come down to these things, if Architects had to, when they talked about drawings they usually got mixed up between

ARCHITECTURAL DRAWINGS AND PICTORIAL DRAWINGS.

Keep the working drawings in their proper position. The criticism as to the violin was a criticism from a working point of view. That in the picture was never intended for anything but a picture of the violin, and so long as it was a general representation of that kind of instrument, what did it matter? The same sort of criticism was usually offered by a dressmaker when inspecting a picture in which costumes were painted. And for Architects to judge "ground plan" of a picture was absurd and ridiculous; it could not be there at all, and it would, of course, appear that the whole thing was wrong from beginning to end. If they looked at the greatest pictures they would see that it was not so much the subject treated and the way in which it was treated which made or marred the picture. It did not matter whether the subject represented a dirty old Jew being pulled up out of the ground—a picture supposed to be sacred because it was entitled "The Raising of Lazarus," it did not matter what the subject was, for that was not very material. The painter's mission was to paint things, and if he painted them as well as he could they ought to be thankful.—Mr. J. Stockdale said, those who took part in these discussions were supposed to be able to speak on any subject, from the hanging of a slate down to a new picture. But undoubtedly they did take more notice of the Architecture of a picture than the ordinary member of the public, and there could also be no doubt that the painter approached Architecture from a totally different view to that of the Architect. The painter put upon his canvas only what he saw, but the Architect frequently sketched what he did not see but what he knew to be there, with the result that the two productions were very different: nevertheless, some regard, he thought, ought to be paid to Architectural accuracy.—Mr. C. E. Mallows said, he thought Mr. Balfour had done a great service to them in laying before them such an interesting paper. But he would have done still greater service if he had called attention to the work of men like Albert Moore, E. A. Abbey, and Gerald Moira, whose work did not reveal that indifference to Architecture which previous speakers had so much complained of; especially with regard to Abbey's work, he thought there was a good deal of most sympathetic feeling and care for Architectural detail. A well-known and very able London Architect, who knows Mr. Abbey well, and his great love of Architecture, told him (the speaker) that the greatest amount of care and attention was given to every Architectural detail in his pictures. Indeed, it is only necessary to turn to any one of them to prove this. His illustrations to Andrew Lang's comments on Shakespeare, reveal an astonishing care for and knowledge of Architecture. If that was the case, he thought they might study Mr. Abbey's works with great advantage. Mr. J. Hyars said, he thought it was a pity Architects did not keep their drawings to themselves. They were really done for their own use, to see what sort of buildings they were going to put up, and as soon as they got the general idea it mattered nothing. So long as the public knew what was a door and what was a window, details as to height and so forth did not, or ought not, to concern them. The same thing applied to masonry and brickwork. No one, he took it, could mistake masonry for anything else but masonry. If they were not satisfied with their own drawings, it was a pity they did not employ Artists to draw them. He

did not agree that one should take no heed of pictorial Architecture, because, until they had drawn a thing in perspective, they did not know exactly what they were going to do.—Mr. H. A. Satchell said they must remember that the representation of Architecture could be approached from many standpoints, and it was the business of the painter to deal with the subject very differently from the Architect. He was reminded by this discussion of an interesting series of demonstrations given some time time ago at the Royal Academy by an American gentleman who sought to show that all painters who dealt with life in motion were wrong. Life was not long enough for them to learn everything appertaining even to one profession. The ideal form of pictorial expression for Architects would be for them to depict the building from what point of view it looked best.—The Chairman, Mr. W. Pywell, thought it was very useful to hear such a paper as Mr. Balfour had given, because it engendered thought on the subject treated. It seemed to him that if they strived to render their drawings pictorial they would be none the worse off, but he thought life was too short and they could not know everything, and time given to pictorial Architecture might possibly be better employed in attending to simple perspective. In his opinion

A PERSPECTIVE DRAWING WAS ABOUT THE LIMIT

of the ordinary Architect's representation of Architecture in a pictorial sense. Mr. H. W. Brewer said, he had listened to Mr. Balfour's paper with great pleasure. Mr. Balfour had treated the matter from what he might call a poetical point of view, and it seemed to be the opinion of certain speakers that he had been a little too poetical. He was bound to say, however—and he hoped no one would be offended—that the modern Architect might be a little more poetical. That was an element, he thought, which might fittingly be more widely introduced into the profession. Mr. Balfour had said that when a painter was painting the background of his picture he rather suggested than worked out the detail. It was a curious thing, but he had heard the same remark made very many years ago. He was once painting a piece of Architecture in the background, and had got it into the condition in which young men do—very much made out—when Mr. Stanfield, the well-known scene painter, went up to him and said, "Quite right, my boy, paint what you can see and when you have done that you will be an Art student. When you can suggest it without painting then you will be an Artist." This was one of those matters in which it was impossible to lay down the rules and principles. Indeed, he did not know whether the rules and principles in Art were an advantage or a disadvantage. He was afraid that Mr. Pennell would abolish them altogether, and he, the speaker, was not quite sure that he was wrong. As to the modern representation of Architecture, or Architectural drawing, as they called it, he had a word to say. The object of an Architectural drawing, or one of its objects, was to let the public know what a building was going to be like. If this was the case it seemed clear to him that something like a picture must be produced. He was not quite sure whether they were right in making a perspective drawing in pen and ink. When he was a lad, the Architectural room at the Royal Academy contained nothing but water-colour drawings, and he knew that at that time the room was generally filled with people anxious to see the drawings. Now-a-days, if they went there, they usually found about a couple of woe-begone men noting how wretchedly their drawings are hung. He did not question the fact that pen-and-ink was very beautiful material, but it was more beautiful for ancient buildings, such, for instance, as they saw in Mr. Pennelt's drawings. He said they were not correct, and he did not care about it. But they always seemed to him (Mr. Brewer) to be particularly correct. Mr. Pennell might take little liberties here and there, but he was bound to say, that nothing ever gave him a better idea of an old town than did his drawings. But it was another question when they came to the representation of modern buildings, and as Mr. Balfour had pointed out, it was scarcely fair to make the modern building look as though it was

A VENERABLE ANTIQUITY.

It was not quite right, for instance, when they were going to put a Church up next week, to represent a vigorous growth of ivy round the tower. If pen and ink was the best material for drawings of modern buildings, it would be better, as had been suggested, to let no one see the drawings, and especially to keep a client in the dark. He knew of a case in which a gentleman, at whose expense a Church was being erected, expressed the greatest delight at the building, but on seeing the plans for the first time, when the Church was well advanced, said he was glad he had not been shown the designs earlier, otherwise he would not have allowed them to be carried out, so poorly did they represent to him the kind of building that was to be erected, and if a client, who was supposed to know something of plans, was deceived, how much more likely was it that the general public would be deceived. He was at an exhibition some time ago, when a friend went up to him and said, "Brewer, we can't make out a drawing—whether it represents the outside or inside." The friend was told that it represented both and neither, for it was a section. "Well, what is a section?" he asked, and Mr. Brewer explained as well as he could. "What are the black places here and there?" "They represent the walls cut through." "But are the walls to be cut through?" "No." "Then it won't look like the plan. How do you know what it would look like?" "I don't know." "Then, what is the good of representing it like that." Mr. Brewer gave the case up as hopeless. As to decorative painting—his own impression was, that anything which was exquisite and beautiful was decorative, and he thought they might take this as the real meaning of the word. He thought modern pictures should be looked upon as a decoration, for they gave wealth and colour to the wall. If they were to have pictures, however, it was quite clear, in these days of removal, that they must be moveable, and not a portion of the wall, as of old. The fact that pictures were no longer let into the wall, or made on panels, ought not to be considered as detracting from the decorative qualities of the picture.—Mr. Balfour briefly acknowledged the vote of thanks. The meeting terminated.

"THE WILLIAM MORRIS LABOUR CHURCH."

THE ancient meeting-house of the Friends, on Overton Bank, Leek, which will henceforth be known as "The William Morris Labour Church," is at present undergoing reparation at the hands of Mr. Billing, the builder. It is an unpretending, interesting, stone edifice, a couple of centuries old, standing in a well-turfed enclosure surrounded by tall old trees, where out-door meetings may be held under pleasant conditions "in the prime of summer time." It is furnished with old high-back pews, and has a comfortable upper chamber for small meetings; it will accommodate from 200 to 300 people if necessary. The walls are being lacquered a rich red, with stencil ornaments in colours to designs kindly contributed by Mr. Walter Crane. The ceiling and overhead beams are being finished (as also the barred sash windows) in pure white, and the woodwork painted a translucent green. The west and south upper windows will be draped with Morris blue velvet fabric, and the gas lighting is to be incandescent, with pink shades, &c. The decorations by Mr. J. Ratcliffe are under the general direction of Messrs. W. Sugden and Son, and Mr. Craigmile and Mr. George Rigby (as well as Mr. Crane) are giving valuable assistance. Mr. Rigby has designed a beautiful bookcloth, lettered in "Kelmscott" by Mr. D. Larner, which is now being embroidered by a skilled artist on Morris silk, and will be the gift of Mrs. Sugden and Miss Clodd. Miss Larner, of Hampstead, has presented the blue Morris velvet curtains. Mr. Stephen Webb (one of the founders of the Arts and Crafts, and associated with William Morris at South Kensington) is emblazoning a pair of silk banners with Morris quotations to hang aloft. The coloured festooned shade to the sunlight is the work of Mrs. W. L. Sugden. The emblematic figures and foliage decoration on the staircase walls, designed by Mr. Rigby, will not be complete for the opening. Already some 50 members have enrolled themselves.

Views and Reviews.

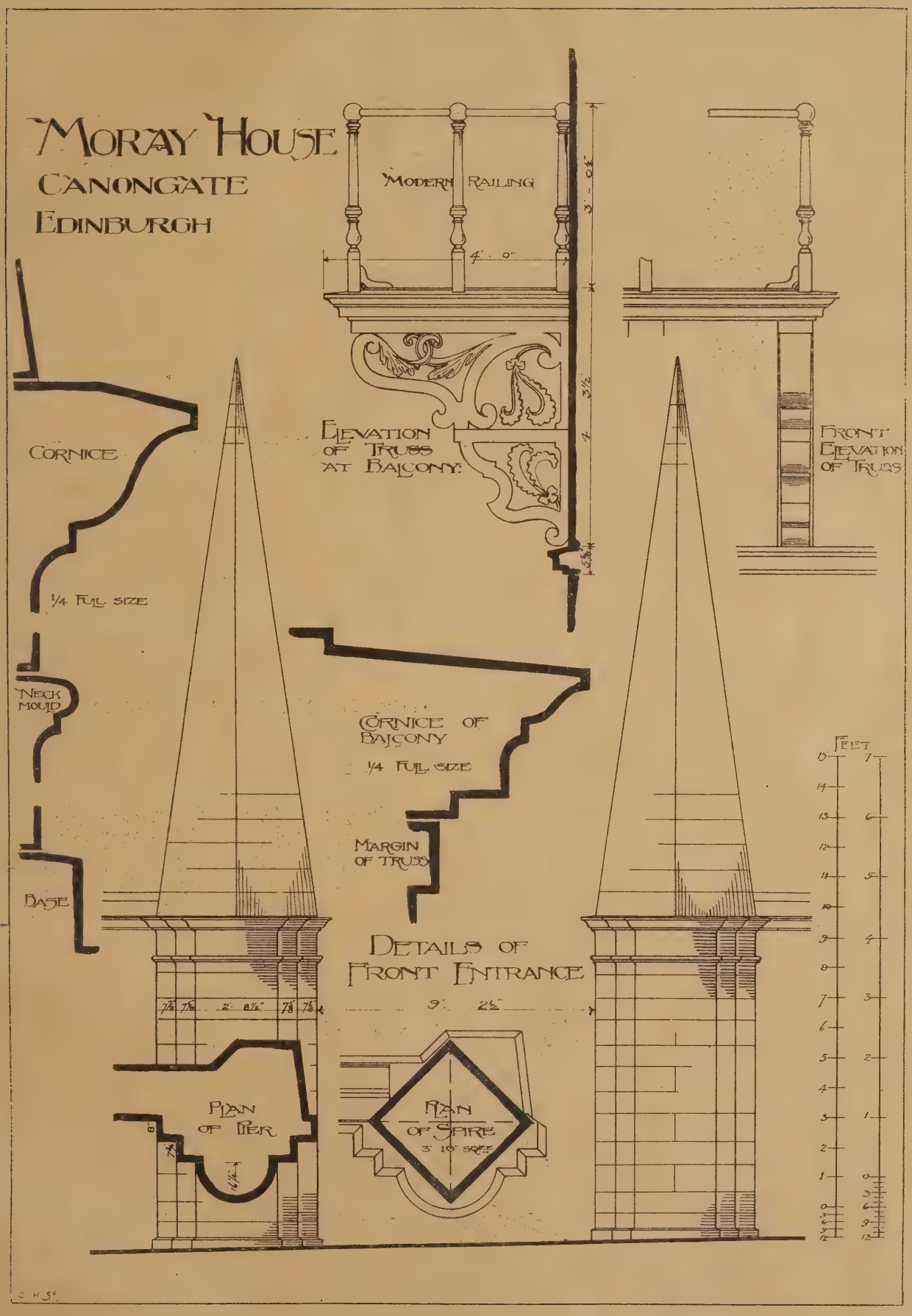
HAMPTON COURT.

BY WILLIAM H. HUTTON, B.D.

THIS book contains a collection of very charming sketches by Mr. Railton, in which we recognise all his characteristics of Artistic handling. His picture of the Great Banquetting Hall of Henry VIII., opposite page 50, is very fine. The frontispiece, a view from the river, is a good example of deft workmanship, putting in just so much as brings the scene before us, and knowing where to stop the hand. It is invidious to pick out the best ones where all are so good, but for dainty drawing, in Mr. Railton's best style, we think the Old Window in south front (p. 116), the Trophy Gate (p. 4), the Clock Court (p. 42), the Orange House (p. 104), and the exterior of Wolsey's private rooms (p. 48), will be most admired, and many may be glad to have such charming records of our most beautiful and most interesting of palaces. The accompanying letterpress is easy reading, and may lead those desirous of more information to the complete and exhaustive work by Mr. Ernest Law. The anecdotal gossip is amusing, but there is much that has no connection with Hampton Court. Ten pages are occupied by an elaborate attack on the character of William III., the King who passed the Toleration Acts, and eight are devoted to a one-sided account of the very one-sided conference between the nine bishops and five deans of the Episcopalian persuasion and the four Puritan divines, before King James I. He quotes from Mr. Paget, whom he rightly terms a "detective," and from some foreign author about the murder of the De Witts, and—we suppose on the principle that any stick will do—he tells us that William and his Queen, Mary, "both refused to touch for the king's evil, and so the quaint and solemn office was laid aside," and so on, while the theological legislation of Charles II. is slurred over. We do not perceive what all this has to do with Hampton Court, and the book would have been less bulky for its omission. He mentions the lately discovered private chamber of Wolsey, and Mr. Railton gives a sketch (p. 10) which shows how like the ceiling is, not to the chamber of Isabella d'Este, at Mantua, as Sir J. C. Robinson says, but to similar chambers in the Castle of Blois, built contemporaneously by Francis I. An interesting account of the great Mantegna Frieze is given, and the difficulty (we would say impossibility) of seeing it adequately is admitted. It is to be hoped that when the South Kensington Museum buildings are completed a room may be planned for these priceless pictures, so that they may be as safely and worthily housed, and as accessible to students as the Rafael Cartoons (formerly hidden away at Hampton Court) now are. When the danger of fire, from the number of irresponsible persons to whom free residences at Hampton Court are granted, is considered—a danger which is not an imaginary one as a recent fire there shows—the authorities may perhaps, before it be too late, remove these to a safer place. We observe that Mr. Hutton gives a choice between the two variants on page 189—Laguerre, in line 6, and La Guerre, in line 27. A good index is provided, for which every reader will be grateful. In closing this book we confess we do not know what class of the public will *use* it; for the library, the work by Mr. Law, beforementioned, will suffice; and for the visitor, the handy little book by the late Sir Henry Cole (which can be slipped into a breast pocket) is a model of its kind, giving a full account of all that he needs, with no airing of theological prejudices and no padding to make it bulky.

HAMPTON COURT, by William H. Hutton, B.D., with 43 Illustrations, by Herbert Railton. London: Nimmo.

A SCHEME for the erection of a new Church and parsonage at Newport, near Brough, is now in an advanced stage of development. A site has already been purchased from Mr. Milnes Gaskill, of Wakefield. It is intended to include a burial ground in the scheme, for a long time a great desideratum—the nearest burial ground being more than two miles away.



MEASURED AND DRAWN BY A. A. MacCULLOCH.

Bricks and Mortar.

EFFINGHAM HOUSE, ARUNDEL STREET,
December 30th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

RATHER a novel notion for public memorials has been mooted in the suggestion that special gas-lamps should be designed and dedicated to the memory of distinguished men. The proposal is made in connection with the R. L. Stephenson memorial, and it is obviously appropriate to the memory of the writer on gas-lamps in "Virginibus Puerisque," while Stevenson's affection for the lamplighter of his childhood is recorded in one of the most characteristic pieces in his "Child's Garland of Verses." But the utilization of public lighting for memorials might go much further. After all, our generation is greatest Artistically in domestic decoration, rather than in sculpture; and yet with all our modern appliances for lighting, our lamps are hideous and our streets and parks shockingly badly lighted. Why not plan out Hyde Park with at least one "Via Sacra" of memorial lamps? Here would be a combination of utility, Art, and honour.

PLANS and drawings for an extension of the Church House building have been prepared by Sir A. Blomfield, and they have been approved by the Council. The main elevation will be in Great Smith Street, and the building will occupy the site of the old Westminster Free Library, which has migrated into new quarters on the opposite side of the way. Latterly this old building has formed part of the premises of Church House. A clearance of the site is to be commenced shortly, and the new building, which will constitute an extension of the fine frontage already erected in Great Smith Street, will be commenced as soon as the ground is ready. It is to cost £18,000, and will afford a fine room for the House of Laymen on the first floor. The new structure will be dedicated to Mr. Henry Hoare. The work would probably have been commenced before this, but the death of the late Archbishop, who was the chairman of the Council, delayed it.

SOME significant statements as to the effects of the recent builders' strike in Dublin were recently made at the annual general meeting of the Royal Institute of Architects of Ireland. Mr. Albert Murray, hon. secretary, stated that one of its permanent effects would be to increase considerably the cost of building operations in that city, and that was a result greatly to be deplored. Mr. Thomas Drew remarked, that the strike had postponed or diverted for ever building investments to the value of £100,000 in the Dublin district alone, while the amount of wages lost to the men during their period of idleness was at least £50,000. He also referred to the proposed town hall for Belfast, which he said would cost £150,000. He then went into the history of the competition, and concluded by saying that it had been carried out unfairly. Though competitors had come from other quarters, the work has been, he said, unfairly given to a local firm.

THOUGH the Carlyle House in Chelsea has been on view to the public since July, 1895, the chief interest of 24, Cheyne-row has been confined to the past twelvemonth, by reason of the many valuable and interesting Carlyle relics entrusted to the trustees for the official opening in December last year, all of which, with the exception of the MS. notes for Carlyle's Edinburgh address, lent by Mr. Moncure D. Conway, still remain on view. One of the oldest manuscripts exhibited is the copy of agreement by which Carlyle first took possession, at a rental of £35 a year, of 5, Great Cheyne-row, and a comparison of his signature to this document with those of later years reveals hardly any change in his characteristic penmanship.

IT now appears that the County Council has no power to incur expenditure for the purchase of the Queen Boadicea statuary group by Mr. Thomas Thornycroft. In the case of Cleopatra's Needle, a special Act of Parliament was passed, providing for its preservation and maintenance and legalising the necessary expenditure. In these circumstances, and in order that the Council may be in a position to entertain similar offers, it is now proposed to procure the assent of Parliament to the insertion of a clause in a Bill empowering the authorities at Spring Gardens "to purchase, or contribute towards the cost of purchasing, or otherwise incur expenditure in connection with the provision and erection of works of Art in the county of London."

AMONG the novelties which are to be shown at the Paris Exhibition of 1900, will be an exact reproduction of the Montmartre Church of the Sacré Cœur, which is now being built under the superintendence of M. Rauline, the Architect. Before the foundations of the Church could be laid, the builders had to dig a series of 83 pits of considerable depth and about 5 yards in width, and fill them up with masonry and cement, producing in this way a large group of solid columns, on which the Church will stand. The building has already cost about 30,000,000 francs, and as yet the central dome is not nearly finished. The belfry has still to be built, and in other respects the building is in a backward state. The builders hope to have the central dome ready by the year 1900, but the Church will not be completed till 1910. The style of the Architecture is peculiar, although the whole effect is pleasing. It is not Gothic, nor pointed, nor Roman. The original Architect, M. Abodie, who died some years ago, was inspired by the Assyrian type of Architecture, to which we owe the elongated style of cupolas surmounting the towers and turrets of the building.

THE Sub-Music Committee of the Guildhall School of Music is preparing a scheme for the utilization of the vacant ground at the rear of the building on the Embankment and facing John Carpenter Street, which was, in the first instance, reserved in view of a probable extension of the school. This land is about 70 ft. long by 50 ft., and will, if built upon to the same elevation, give 12 additional class rooms. The probable cost will be a little over £10,000.

IT is a common assumption that a house is a substantial structure, and that persons may enter it without risk of danger to life or limb; but it appears from a case decided by the Court of Appeal on Saturday that the assumption is not altogether warranted. A workman was employed in removing furniture from a house near Barnet which had been only recently built. As he was engaged with another man in carrying a bedstead downstairs, the stair gave way, his leg went through, and he was severely injured. For this unexpected failure of the stairs, he has not unnaturally thought that some one ought to be responsible, and he has attempted to fix the responsibility on the owner of the house. At the time when the house was let it seems attention was called to its state, and complaint was made that the staircase was not safe. But with regard to the safety of houses the law professes complete indifference, and the Court of Appeal has left the workman without redress. Unless a tenant arranges to impose on the landlord some special liability, he takes the house in the state in which it happens to be, and whether it stands or falls is beside the mark. A visitor to the house is in no better position than the tenant, and whatever injury he may sustain in consequence of the rottenness of the house the landlord cannot be held responsible.

THE following letter recently appeared in a northern contemporary:—"I was very much astonished to observe in your issue of to-day's date that the Plans Committee of the Middlesbrough Corporation had rejected several plans because they were drawn to the ⅛-inch scale. I am perfectly aware that the bye-laws require the plans to be drawn to the ¼-inch scale, and drawings to this scale have had to be submitted for approval since the incorporation of the borough, but why, I am at a loss to understand, as, having during my professional career had to submit plans to various Corporations, I have never been asked to prepare plans to a larger scale than the ⅛-inch; in fact, this is the only town in England where such a preposterous scale is demanded, incurring from Architects an unnecessary expenditure of time and labour for no practical purpose whatever, simply to comply with an unreasonable bye-law. I feel assured that if the committee would for one moment consider the matter from a practical point of view they would not request Architects to prepare plans to a scale that is only adopted by drawing masters to instruct the uninitiated."

THE Finance Committee of Islington Vestry, in a report, direct the attention of the Vestry to the discrepancy between the aggregate amount of the contracts and other liabilities incurred by the Baths and Washhouses Committee for alterations and extensions at the Caledonian Road Baths, namely £16,099, and the amount originally estimated to be required for these works and sanctioned by the vestry on November 18th, 1895, namely £8,839. Further, the Finance Committee state that, although these contracts were reported to the Vestry by the Baths and Washhouses Committee, yet the Vestry's attention was not at any time drawn to the fact that the original sanction had been so largely exceeded. Owing to the irregularity which had occurred it was requisite to apply to the Local Government Board for sanction to borrow £7,260 in order to meet the deficit.

AT a recent meeting of the Birmingham Architectural Association, the Architectural aspect of the removal of the city Churches was discussed. Mr. T. Naden (who presided) opened the discussion, and said that there were two principal aspects of the subject—first, the Architectural merits of the buildings in question; and, secondly, what would most probably take their place if they were removed. He would consider Christ Church as of most importance, and though the general opinion, he believed, was that this Church was not a thing of beauty, he thought, with the horizontal lines of the Town Hall, the Council House, and other buildings round, the vertical lines of the spire of Christ Church formed a pleasing contrast, therefore the removal of the Church would be a distinct loss to the general effect of the group of buildings surrounding the square. If the Church were removed could they hope that a more beautiful building or one better adapted to the position would take its place? The purchase of the site and erection of business premises thereon would be a large undertaking, and would probably get into the hands of a syndicate of speculators, who would want to make the most of their bargain, and would have little regard to the beauty or appropriateness of the building for its position in perhaps the most prominent spot in Birmingham. In conclusion, Mr. Naden said that he was strongly of opinion that the removal of Christ Church (he would say nothing of St. Peter's) would be a distinct loss to the town from an Architectural point of view, and he would ask the members to enter a protest against it in the form of a resolution. Mr. C. E. Bateman and others spoke in support of the Chairman's views, and the general opinion of the meeting was that it would be doubtful if any other building would be found to harmonise with the surroundings so well. On the other hand, a small section of the meeting were of opinion that it would be possible to replace the Church with something of greater Architectural merit, and thoroughly harmonising with the surrounding buildings. On the motion of Mr. Naden it was resolved, "That this meeting dissents from the present scheme for the removal of Christ Church, and will use all means in its power to oppose it, and that the matter be referred to a sub-committee of the Association for further discussion."

PROFESSOR GLAISTER, St. Mungo's College, Glasgow, lecturing to the members of the Edinburgh and East of Scotland Branch of the National Registration of Plumbers, said the earliest occupation that called the plumber into existence was the builder, who operated entirely in wood or stone. The craft of the lead-worker had then nowhere a place in building, but when

Architecture made bolder advances into the regions of Artistic endeavour and form, the Art of the carpenter and mason was apt to fail in making the fabric watertight, and the worker in metals was called in to supply the deficiency. Lead supplied the deficiency of the workers in wood and stone. Hence the earliest use of lead in fabrics was as a roof-covering, as it was so commonly and extensively used to-day on flat roofs, and to some extent on all roofs. Beyond this there was not much evidence to show that the Art of the lead-worker was required. In the palmiest days of Rome they found that in some of the principal buildings lead pipes were used for various purposes, and of the civilizing influences which in these conquests the Roman Empire exercised, none was more apparent than the sanitary arrangements prevalent in their settlements. In proof of this he pointed to several aqueducts which were made by the Romans for bringing the water supply a distance of 60 miles, and said that one of these served its original purpose till this day. The lecturer proceeded to show how various improvements had been carried out in the plumbing trade, and dwelt upon the high position which it occupied among the trades at the present time.

THE progress which has been made towards the realization of colour photography has been demonstrated at the Fine Art Society's meeting by Mr. Ives, an American, as the result of twenty years' study of the subject. Acting upon a suggestion made by Professor Clerk-Maxwell at the London Institution, so long ago as 1861, who measured the spectrum colour mixtures and designed curves showing in what proportions his fundamental colour sensations combined to reproduce the other hues of the spectrum, a system of colour photography has been based upon his deductions, and from it negative images are produced which on a single-sensitive plate make a colour record. These, when cut in three and mounted in a folding frame are dropped into an optical instrument called by the unsympathetic name of Krōmskōp, and which somewhat resembles a stereoscope. The result is a reproduction which is completely satisfying to the eye of most people, and must be a surprise to all. The discovery seems to open the door to a vast field of usefulness as well as pleasure, for it will afford an imperishable record of colour in many varying walks of daily life, where such a record must be of great and lasting service to mankind. The invention will be on view to the public in a few days at the St. George's Gallery, Albemarle Street.

AT the Public Library, Uxbridge Road, Shepherd's Bush, the medallion portrait of the late Charles S. Keene, which has been set up in the entrance-hall of the building was recently unveiled. The work, which has been executed by Mr. G. Frampton, A.R.A., is in bronze, with a Sienna marble background. The portrait, a posthumous one, is a profile bust of the late artist, with the inscription, "Chas. S. Keene. Born August 10, 1823. Died Jan. 4, 1891." The tablet is surmounted by two small figures, one, mourning over his drawings, which are represented as lying across the knees of the figure, and the other, Humour, also mourning, the figure having in the right hand a staff with Punch's head at the top, which is resting on the ground. The memorial was subscribed for by about 60 of Mr. Keene's personal friends and admirers, the cost of the work being about 100 guineas. The library being dedicated to Leigh Hunt and Charles Keene, it was thought the place would be very appropriate for such a memorial, and the sanction of the Library Committee was readily obtained.

A MAP, showing the prehistoric monuments and sites in the State, is about to be published by the Ohio State Archæological and Historical Society. It appears that the mounds, earthworks, and sites of ancient villages follow the streams. In the Muskingum Valley, along the Ohio River, and in Bush Creek Valley, stone monuments predominate over those of earth, whereas in the Sciota Valley the contrary holds good. In seven of the counties there is a total of 918 monuments.

SOME of the most interesting of the Tel-el-Amarna tablets are those relating to Jerusalem and Central Palestine. At a recent meeting of the Society of Biblical Archæology, Mr. J. Offord gave details of a small number of tablets emanating from "Uru Salem," or Jerusalem, which afforded an insight into the politics and manners of that hill-city some centuries before the date of the Exodus. The date of the tablets is approximately 1500 B.C.

M. GASTON BOISSIER has made a communication to the Academy of Inscriptions respecting what is supposed to be the earliest known portrait of Virgil. It is in mosaic, and was recently discovered by some soldiers, at Soussa, in Tunis. The figure is seated, robed in a white toga, with a papyrus on his knees; on either hand are the muses of history and tragedy. The face is beardless, the hair short, and the portrait resembles the miniature portraits of Virgil in MSS., the best known of which are in the Vatican.

AN object-lesson which the anti-aliens people may well take to heart, was furnished at the opening of the Davy-Faraday Research Laboratory, of which this country has become possessed through the munificence of Dr. Ludwig Mond, a distinguished foreigner who has long resided over here as a member of the firm of Brunner, Mond, and Co. The laboratory, which is one of the finest of its kind in the world, has been erected in Albemarle Street, in premises adjoining the Royal Institution, and given to the institution by Dr. Ludwig Mond, along with an ample endowment for its maintenance. Lord Rayleigh and Professor Dewar have consented to undertake the duties of directors, and persons of either sex or of any nationality will be welcome within its walls, who can satisfy the laboratory committee that they are fully qualified to undertake original research work in pure and physical chemistry. The Prince of Wales, who performed the opening ceremony, congratulated the members of the Royal Institution on this most important accession to its resources, which they owed to Dr. Mond's generosity.

IF the twenty-eighth annual report of the Council is any criterion, the Glasgow Institute of Architects is in a most flourishing state. Whilst it is without the support of such pillars of strength as the late Lord Leighton, and Mr. Robert Blackie, whose deaths are recorded with expressions of deep regret, it is satisfactory to note that the Institute now enjoys the largest membership since its incorporation, its members including, with few exceptions, all the Architects in the west of Scotland with the necessary standing and qualifications. The joint occupation of the rooms at 187, Pitt Street, by the Institute and the Architectural Association has, in the opinion of the Council, been beneficial to both societies, and it is believed that it will be increasingly so in the future. The reading room is well furnished with English and continental magazines of Architecture and the other Arts, and the Council hope ultimately to acquire, by gift and purchase, a valuable library. As the result of a recommendation from a general meeting of the Institute, the Council agreed to give a donation of £30 to the library fund, and a list of books to be purchased is in preparation. Proposals have been received by the Council for the revision of the rules as to the measurement of brick work, painter work, plaster work, and glazier work, but the Council considered that the time had not yet come for revising the rules for measurement so recently prepared. As some misconception appears to exist with reference to the purpose of the Institute in taking part in the preparation of rules of measurement, the Council state in the report that it was never intended that the adoption of the rules should be made compulsory on any one. The Council consider that, however the rules may be modified or amended in the future, it must still be left to Architects and measurers to apply them intelligently, and to adapt them to changing conditions, and to the varying requirements of different buildings. In view of this, the Council are of opinion that the revision of the rules is not a matter of urgency, and that it may be conveniently deferred for a few years. To refer to all the good work of the Institute would create too great a record, but it may be mentioned that in order to encourage and promote the education of students, the Council agreed to take forty tickets, to be disposed of among the members, for the course of lectures on Domestic Architecture, delivered by Mr. A. N. Paterson, in connection with the Glasgow School of Art.

WE would call the special attention of our readers to the latest appeal against the Peterboro' Vandalism which takes the form of a letter and a very remarkable pen drawing by Mr. Joseph Pennell, in yesterday's issue of the Daily Chronicle. The drawing is worth careful study, not only as a picture (that goes without saying), but as a triumph of rapid newspaper printing on the part of the Chronicle. Apart, however, from its Artistic merits, the illustration is a powerful, telling, and eloquent protest against the proposed destruction of the Front. Looking at this impressive picture one almost feels the dumb appeal for help, coming from the stones themselves, asking from the nation that protection from the lust of the "*restorer*" which their present legal guardians refuse to give. We fancy those indiscreet gentlemen who have given support to the "little clique of obscure clerics" will shortly wish themselves rid of such unpopular and unpleasant company. Particularly when they find themselves opposed by such men as John Ruskin, Burne-Jones, G. F. Watts, Walter Crane, Holman Hunt, John Sargeant, and the rest of the distinguished names which form the protest now being drawn up by the Societies of Antiquaries and for the Protection of Ancient Buildings against this awful piece of Vandalism. A little while ago there was some talk of a compromise, to which we refer in another part of the Journal, but it seems as if the time for that had now gone by; compromise with asinine obstinacy is impossible any way. The proper course is that suggested by the Architectural Review, viz., to appoint either a Minister of the Fine Arts or a National Committee, which should have the entire care and responsibility of such treasures as these, our national and historical buildings, and to remove them at once from their present careless and incompetent hands. That there is urgent need for strong action to be taken immediately, the perilous state of Peterborough West Front amply proves. It may soon be destroyed *beyond recovery* if those in the right place do not move in the matter.

AN acquisition has been made by the British Museum of a papyrus manuscript, probably of an age some years earlier than the Christian Era, which has been found to contain the lost odes of the lyric poet, Bacchylides, a contemporary of Pindar and Simonides, whose poems were written to celebrate the victories of his patrons in the Olympic and other great games of ancient Greece. The manuscript is finely written, but has been much mutilated, and it is uncertain how many poems are contained in it, but there appear to be portions of at least fifteen or twenty, some of which are absolutely or substantially intact. This gives another Greek author whose works, until quite recently, were regarded as hopelessly lost, who has found preservation in papyrus manuscripts in Egypt.

A SURVEY of the picturesque remains of Birkenhead Priory is proceeding, and already curious discoveries have been made of the base uses to which the venerable pile has been subjected. For instance, the beautiful crypt has been found to have been employed as a donkey stable. Monk's Ferry, which was once the waterway from Liverpool to the terminus of the Great Western Railway system in Birkenhead, is a thing of the past, and it is interesting to recall that it derived its name from the habitation near by of cloistered ecclesiastics.

PREPARATIONS for the reopening of Parliament are in progress, but with the exception of washing the ceiling of the House of Commons and clearing the interior generally, no outlay has taken place. The vacation staff of workpeople has been, indeed, exceptionally small. The statue of Mr. John Bright, which last session was the subject of some heated controversy in Parliament, still occupies its place in the main hall of St. Stephen's, although it was understood when the session closed that the First Commissioner of Works had ordered its removal. The marble is grimy with dust, and this is the more noticeable as an instance of neglect from the fact that the marble memorials of Earl Russell, Earl Granville, and the Earl of Iddesleigh, in the same hall, have been carefully protected. These are now covered with cloths, after having undergone their customary cleaning, but as no one apparently knows to whom the statue of Mr. Bright belongs, the workmen have left it severely alone.

ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.

ANNUAL GENERAL MEETING.

AT the annual general meeting, held at 37, Dawson Street, Mr. Thomas Drew, President, occupied the chair. Mr. Albert E. Murray, the Hon. Sec., presented the annual report, which stated that:—The continued popularity of the Institute had been realized beyond their expectations, no fewer than 11 new names having been added to the muster roll during the last 12 months, bringing their number up to 82. They held 14 meetings during the past session, of which 8 were ordinary and 6 special. They had under consideration the best means to adopt in order to prevent work from passing into unqualified hands for execution. They also desired to call attention to the way in which the profession is injured by the employment of the salaried officials of large public bodies for private buildings. The Board of Works is an old offender in this respect, and endeavours have previously been made to have this grievance removed, but so far without success. The stronger the Institute becomes the more effective will be its action against all such professional abuses. The Council sent three representatives, including the President and Honorary Secretary, to the general meeting of the Royal Institute of British Architects, held in Manchester last May. The great strike which paralysed the building trade during the whole of last summer was one of the most noticeable events of the year, and caused an immense amount of disturbance and suffering, the effects of which are still being felt. One of the results of the strike has been to increase still further the cost of building in Dublin, a result to be deplored, and one sure to prove detrimental to the interests of all concerned. They had a very interesting interview and correspondence with the Master Builders' Association recently. This Society has greatly increased its numbers since the commencement of the strike, and now numbers all, or nearly all, of the larger building contractors of Dublin. The object of the conference was the desire on the part of the builders that they should adopt a series of recommendations which they had drawn up for their consideration. They related chiefly to the methods they wished them to observe in asking for tenders for buildings, so as to secure, as far as practicable, a fair and impartial decision in every competition, and to discourage favouritism and unfair tendering. Mr. C. Geoghegan moved, and Mr. R. C. Miller seconded the adoption of the report. The Auditors' report showed that there was a balance in hand of £85 14*s.*, of which £58 15*s.* 9*d.* had been carried over from last year's account. The President delivered his address, in the course of which he said that when he addressed them last year he did so in a cheerful spirit of prophecy of coming activity in the operations of their profession, and of good times for them all round, such as had not been known to Architects in Ireland in times of unrest and economic disturbance. Unfortunately for them, in Dublin at least, they reckoned cheerfully on general principles of political economy without taking account of the accidental issues of unrest and unreason which disturb the course of abstract philosophy in this country. They did not take account of a general strike in the building trade in Dublin. This strike began in May last, and paralysed building operations practically for nine months of the year—throughout the building months—condemning many willing working men to idleness, and Architects to sit with folded hands. It was probably within estimate that this strike had postponed, or diverted for ever, building investments to the value of £100,000 in the Dublin district, and that the

WILFUL LOSS OF WAGES

payable for skilled labour throughout this long wasted summer of 1896 had not represented less than £50,000 to the men of the trades. The ambition of the Irish Architect was to design and build fine monumental Architecture, and before all other materials, in the incomparable native building stones of his own country, and wrought by native hands; but let the stone-cutting trade take note that whether it was demanding but a fair living wage or not, its craft was a declining one in the country. Its cost had reached a price that was widely prohibitive. The inroad of artificial products and new expression of Architecture was encouraged. The plasterers' case was also, for instance, a craft in danger in Ireland. There was notoriously not a sufficient supply of skilful working plasterers for current wants; skilled labour had to be imported, and in any case the cost of ordinary plasterer's work had become so enhanced beyond its value that those who build seek every device to dispense with its use, and there were many modern devices to dispense with the plaster. During the late suspension of work, which had touched them as Architects, the general question of the status of the "foreman," who is the responsible practical director of the building works—the representative of the contractor with whom the Architect had daily to do—had been discussed by Architects. This was not a mere question between masters and men. It was one to which the public, whether as private employers or public department employers, had something to say, and Architects, in their representative position, were both entitled and bound to express an opinion on such a question. The

ART OF BUILDING—

had come to be one of extreme complexity. It demanded for its direction a man of education, of special and versatile knowledge of many things, and with an authority—a status and weight over the heads of the body of various tradesmen—which had as yet been unrealised. A new and specially trained class of managers or controllers of building works must be created. It should be clearly stated, from an Architect's point of view, what full qualification should be required for the man of the future who would take service under the extensive building contractor, the Crown, or the great and increasing number of wealthy building employers. He should be a tradesman—that is, the master of one handicraft, however acquired—say an operative carpenter. The men under him must know him to be as good a man as themselves, or better at a craft, and respect him accordingly, and he must also acquire by some technical training a general knowledge of the methods of all other trades employed in building. He now passed on to another subject which had an interest for them—namely, the late

COMPETITION FOR THE TOWN HALL IN BELFAST

—and he would like to make a few remarks in its regard. It was an important work, and would cost about £150,000. The Corporation of Belfast applied to the Royal Institute of British Architects to frame conditions and name an assessor. They did both. They were communicated to the Town Council. They began by omitting to thank the Institute, and it was evident later on that matters had been interpolated into the conditions—things which the President believed were perfectly foreign to competition and quite inoperative, but Mr. Waterhouse insisted on the matter being set right, and the result was that there was no fault to be found there. Mr. Waterhouse, with Mr. Bretland, finally selected three designs from those sent in, and proposed then and there, as the President had gathered, that the envelopes should be opened and the successful men declared. That was quite a proper thing. Mr. Waterhouse then went back to London as fast as he could. Strange to say no announcement appeared of this, though the proceedings were known in Dublin, London, and Edinburgh, within twenty-four hours. The committee in charge of the matter were not quite satisfied, and they wanted to bring in two other designs; and this committee proceeded illegally and improperly to vote for three plans out of five for final competition, and eighteen members plumped for the Belfast man, and the now celebrated Plan No. 22 was selected. The proceedings next came to the Belfast Corporation for confirmation, and the result of the matter, he thought, reflected great credit on the town of Belfast. The majority of the Corporation had got hold of the right end of the stick, and fell foul of the committee. Plain talk was used in that part of the country, and the mildest words used were "jobbers and tricksters," and such like. The whole proceedings were carefully discussed, and a strong feeling had arisen about it in Belfast. Some of them were inclined to express sympathy with the Architects who had been put into this position. They lost no time in writing to the Corporation withdrawing their plans, and declaring they would not be put in a position of the kind. This made the row very much worse; he thought these gentlemen had acted very properly, and he was glad to say that there was perfect unanimity in regard to this subject amongst their professional brethren in Belfast. Well, the decision of Mr. Waterhouse now stood, and he understood the gentlemen who had drawn the selected plans had been communicated with in order that they might go in for the final competition. That showed what public opinion could do. The President concluded by hoping that the Royal Institute of British Architects would give greater inducements to provincial Architects to join that body.

KEYSTONES.

A PROPOSAL is on foot to erect an illuminated clock in the tower of St. Paul's Church, Foleshill.

A NEW hospital is about to be opened in London, to be known as the New Central Hospital.

AT a recent meeting held at Tonbridge School, it was resolved to erect a Chapel.

A NEW Chapel is to be erected at Lowerhouse. Accommodation is to be provided for 450 persons, at a cost of £1,300.

ALL idea of unveiling the obelisk which is about to be erected in the Isle of Wight, in memory of Lord Tennyson has been abandoned for this year.

THE Elder Yard Unitarian Chapel, Saltergate, Chesterfield, has just been restored at a cost of £1,000.

A NEW Primitive Methodist Chapel is about to be erected at Fleetwood, on which it is proposed to spend £4,000.

HAMPSTEAD Board of Guardians proposes to add a new wing to the workhouse to accommodate about 100 inmates.

WITHIN a few years 200 artesian wells have been opened in Queensland, yielding 125,000,000 gallons of water a day.

A BRONZE statue erected in Leinster Lawn, Dublin, to the memory of Surgeon-Major Parke, has been unveiled by Lord Roberts.

Mr. FREDERICK VANGO BURRIDGE, A.R.E., late of the Royal College of Art, South Kensington, has been appointed to the head-mastership of the School of Art, Mount Street, Liverpool.

THE chancel of St. James's Church, Glossop, has been panelled with oak, and the organ front covered in with the same material, to harmonize with the choir stalls and other Church furniture.

IT has been resolved at a public meeting, held at Canterbury, to open a local fund in aid of the movement for the establishment of a national memorial of the late Primate, in Canterbury Cathedral.

A SERIES of experiments in the use of oil fuel are shortly to be tried at Portsmouth. The "Surly," has been selected for the experiments, which are the first of the kind ever carried out in the British Navy.

FURTHER additions have been made to the building in Brompton Road occupied by Harrod's Stores, greatly to the convenience of customers. An area of 26,000 square feet is covered by the new premises, which have a frontage of 400 feet.

THE Tynemouth Town Council is promoting a Bill in Parliament, to supply water in the borough and adjacent places, and to acquire the undertaking of the Company of Proprietors of the North Shields Waterworks.

THE Wesleyan Chapel at Ryhall, about two and-a-half miles from Stamford, has been re-opened after considerable alterations and improvements. A new schoolroom, two class-rooms, and vestries have been erected on land adjoining the Chapel.

OPERATIONS are being carried out at Stonehaven with the view of rendering perpendicular one of the pillars supporting the west side of Ironfield Bridge. This bridge was destroyed about the end of 1895, and erected again in the autumn of the present year.

THE old bell which the crier used to ring outside the condemned cell at Newgate, on the eve of its tenant's execution, has been discovered in St. Sepulchre's Church, and it is proposed to place an appropriate inscription on the bell and hang it in a prominent position in the Church.

THE question of a subway for vehicles underneath the Mersey appears to be again coming to the front. Much valuable time and a large amount of lighterage expenses would be saved by the construction of such a tunnel between Liverpool and Birkenhead. Some years ago a company was formed with the view of constructing a subway, but the scheme was abandoned.

ECCLESIOLOGICAL NOTES FROM NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

(Continued.)

THE Augustinian Church at Erfurt, of less grandiose dimensions, lies a little to the north of those just described. Instead of clerestory it has a low wall just above the lean-to roofs of the aisles unpierced by windows, and against whose north side a beautiful little octagonal belfry, terminating in a coronal of pinnacles, rests. The tympanum* of the north door is traceried like those at the Dominican and Franciscan Churches, but in a more geometrical style.

The finest parts of the Dom at Erfurt—imposingly placed at the summit of a flight of steps above the market, towards the western extremity of the city, are its choir, its triangular northern portal, and its cloisters. The choir,† one of the most satisfactory buildings of that class in which the German Architects of the latter half of the fourteenth century evinced their predilection for tallness of fenestration, retains the original painted glass in its richly traceried and lofty windows of three lights. Inclusive of those in the apse, there are fifteen windows, but unfortunately, owing to the narrowness of the arch opening from the nave into the choir, it is impossible to take in the whole of this magnificent lantern of mediæval vitreous decoration at a *coup d'œil*. The porch, of a type found occasionally in Germany—as for example at Ratisbon—has its portals facing north-east and north-west, the base of the triangle being the northern wall of the nave. The north-eastern portal is guarded by figures of the Apostles, while effigies of the Wise and Foolish Virgins‡ flank the companion one. A graceful little flèche rises from this interesting triangular composition, whose north-eastern door forms the crowning point of the aforementioned flight of steps. The nave of the Dom at Erfurt, as well as that of the contiguous St. Severus', is of the "hall" kind, and a century later than the choir. It has a curious declension to the north, and the side aisles, which, externally are gabled above the windows, as at St. Stephen's, Vienna, are wider than the central one. As a whole, this part of the Church does not rise above mediocrity, although its general effect internally is imposing, and may possibly have supplied Pugin with his model for St. Chad's, Birmingham, where its tall reeded pillars and immense painted windows are reproduced. The "hall" nave at St. Severus has double aisles on either side, and the whole is covered up, as with an extinguisher, by an immense mass of steep tiled roof. The most remarkable feature of St. Severus—so close to the Dom that the two western façades, viewed at a little distance to the south-west, appear to touch—is its triplet of sharply-pointed slate spires, very plain, and surmounting towers, which grow up from an elongated mass of wall inserted between the nave and the pentagonal apse, in lieu of transept. This same arrangement—recalling in some degree the screen façades of Maastricht—occurs also in the Dom. Here it is chiefly modern, for, on reference to Puttrich,§ the original fifteenth-century design appears never to have been properly reinstated, after injury in a storm of 1717, until the present half century restored the three richly crocketed spirelets, which, taken in conjunction with the adjoining ones at St. Severus, combine to form an Architectural composition of much dignity and interest. The wall space which these spires at the Dom surmount is Romanesque, and apparently the only remaining portion of the original Church, which was rebuilt piecemeal during the fourteenth and fifteenth centuries. On the south side of the Dom, at Erfurt, lies one of the most beautiful cloisters* in Germany, Middle-Pointed in style, and very reminiscent of those at Lincoln. The eastern side is the oldest, but nowhere are two windows similarly traceried, consequently they afford a beautifully varied series for transference to the note-book or the sketching block.

On the whole, German Churches have been far more fortunate in the retention of these *entourages* than French ones, a cloister approaching anything like completeness being somewhat difficult to meet with in the great Churches of such provinces as Picardy, Normandy, and Champagne. Germany was extremely rich in religious houses,† and it is not uncommon to find more than one cloistered Church in several towns. Paderborn, for instance, possesses a charming decorated cloister on the eastern side of its Cathedral's north transept; while a very large one of Transitional character extends along the south side of the Busdorf Kirche in the same city. Some of the best examples of German cloisters may be mentioned here. Romanesque or Transitional: Bonn (the Minster); Essen (the Minster); St. Maria in Capitolio, at Cologne; Hildesheim (the Cathedral); Halberstadt (the Dom): the last are peculiarly elegant, and, like those at Osnabrück Cathedral, have an upper story. Decorated cloisters—the following deserve especial mention:—Those belonging to the Cathedrals of Aachen, Erfurt, Mayence, and Münster; and to the Churches of St. Victor, at Xanten, St. John, at Osnabrück, and St. Servatius, at Maastricht. Naumburg Cathedral possessed two cloisters before it passed into the hands of the Reformers, one on either side of the nave. The southern one, of Transitional character, remains.

At Herford, the cloisters, which must have been on an extraordinary noble scale, have entirely vanished, little being left to tell the tale, as at Naumburg, but a few stumps of attached groining shafts against the wall of the northern aisle.

It is interesting to observe how little the outline of the complete Gothic tower of Germany differs from that of the Romanesque and Transitional periods, being still divided into stories of equal height by string courses, and its windows—never very large—set, if I may so speak, in a framework of masonry, projecting, in lieu of buttresses, but little from the wall in which they are pierced. Mr. Hanson's pen-drawings of the steeples attached to the Cathedral and St. John's, at Osnabrück, which appeared on December 16th, illustrate this better than any words of mine. The somewhat rude character of the Romanesque north-western tower of the Cathedral is remarkable; its contour bearing a considerable resemblance to that of the solitary western tower at Paderborn. The Transitional pair of western steeples at Münster Cathedral are, if we except their fenestration, almost identical with those of St. John at Osnabrück, the pyramidal slate capping, common to both, materially increasing the resemblance. Indeed, so little change took place in the outlines of steeples in this part of Germany, *i.e.*, Westphalia and Saxon-Prussia, that they are apt to become not a little monotonous. The richness and variety of such steeples as cluster so thickly in the southern part of Lincolnshire, between Sleaford and King's Lynn, are, I think, hard to find anywhere on the continent. Frequently the Westphalian and Saxon towers are roofed with tall slate or lead, but rarely stone, spires; while in many instances we meet with the low pyramidal, or fantastically domed, capping, both of which types appear in Mr. Hanson's sketches. Some exceptions, however, demand attention. In that part of Westphalia, neighbouring to the Rhine district, the gabled tower with the short quadrilateral spire of stone or metal—an adumbration of the spires to be presently alluded to, and with its ribs springing from the gables' apices—is met with, as, for instance, in the Marien Kirche, Dortmund. At Essen the western steeple of the Minster, *i.e.*, that surmounting the old Romanesque octagon, is of the Laach type. St. Peter's, at Dortmund, has an elegant unbroached and crocketed spire of stone, rising from a square tower with angle pinnacles; and at Unna a good-sized town between Dortmund and Soëst, a slate spire surmounts a tower of the same type.

The tower, gabled on each side, alluded to above, although encountered frequently in the Rhine provinces, does not come before the notice on a very grandiose scale until Soëst is reached. Here we have an unusually dignified example of it in the steeple of the principal Church of that city, St. Patroclus. It dates from the earliest years of the thirteenth century. Crowned with a sturdy metal spire of extremely pleasing outline—a spire whose ribs rest alternately on the angles of the tower and the apices of the gables which terminate it, this steeple of St. Patroclus, at Soëst, may be taken as a *via media* between the stunted quadrilateral Rhenish spire and those fully-developed ones met with at Lübeck* and Lüneburg. Between Soëst and Paderborn, this same type of tower, sometimes with a spire, at others taking the form of a cruciform† saddleback, frequently occurs in the villages which, bordering the railway line, might, in case of detention or overmuch leisure, prove worth a visit. Time, however, did not permit of the experiment being tried in this instance. Of the cruciform saddleback we have a fine example in the steeple of the Busdorf Kirche at Paderborn, and this was the form the steeple at the Cathedral took until the erection, within the last half-century, of the present ugly black lead spire. The favourite place for the steeple in Westphalia seems to have been at the west end of the nave. Each of the Dortmund Churches has its steeple in this position, likewise those at Soëst, with the exception of the Wiesen Kirche, which has a pair of modern spires, with open tracery like Cologne and Freiburg at the west end. There is considerable variety in the Soëst steeples so proudly dominated by that of St. Patroclus just touched upon. The Paulus Kirche has a most pleasingly contoured tower built of a peculiar greenish stone, with small windows delicately traceried in its belfry stage, and a rather elongated pyramidal spire of metal. St. Maria in Hohe, also at Soëst, has a gabled tower surmounted by a tall slate spire curiously inclining towards the west‡. Münster possesses two very beautiful fourteenth-century steeples—those of St. Mary Ueberwasser and St. Ludger. The former, carried up square in several stages, is surmounted by a solid octagon of rich workmanship, crested, and with pinnacles masking its alternate sides; St. Ludger's lantern is much lighter, *ouvert au jour*, and surmounting an octagonal tower, which in its lower stages is Romanesque. At St. Lambert's, in the same city, the tower, lately rebuilt, opens into the nave at the west end by a noble arch on slender shafts, in a manner recalling some of our grand Decorated and Perpendicular examples in Lincolnshire and Somersetshire.

Such groups of steeples as occur along the Rhine are not common in the centre of Germany, while the tall central tower, on the imposing scale of Coutances, Rouen, York, and Gloucester, is almost, if not quite, unknown. St. Mauritius at Münster, and St. Mary at Lippstadt, are very similarly planned as regards their towers, each having a very massive one at the west end of the nave, and a slimmer pair flanking the entrance to the choir.

* The tympanum of the south door of the Lamberti Kirche at Münster has the space filled in with a beautiful Radix Jesse, while, in the much earlier western portal of St. Elizabeth at Marburg, the roses and lilies which play so int resting a part in that saint's history are introduced.

† Mr. Pryone, in the very striking Church lately built from his design at West Dulwich, seems to have been influenced by this choir at Erfurt.

‡ The Parable of the Wise and Foolish Virgins was frequently selected for illustration in this situation in German Churches. It occurs in the magnificent western portal of the Minster at Freiburg-in-Breisgau; at Bamberg, in the north door of the Upper Parish Church; at St. Sebald's, Nuremberg; and in the south-western portal of Strasburg. The same subject is portrayed in panels on either side of the south transept window of Paderborn Cathedral.

§ Baukunst des Mittelalters in Sachsen.

* Called, in Germany, Kreuzgang (Way of the Cross) from their appropriation to the recital of this office. Most of the cloisters are provided with pictures of the Stations, and furnished with desks and kneelers. At Osnabrück the Stations, in the form of shrines, are disposed outside, around the garth.

† Many of these conventual establishments which survived the Reformation, were only suppressed in 1803.

* At Lübeck the surfaces of these gables are relieved with small panels enclosing quatrefoils, all executed in brickwork, and imparting a very rich effect.

† The "saddleback" tower is nowhere seen on so fine a scale as in Normandy. Numerous imposing examples meet the view during the railway ride from Lisieux to Coutances, while in the Cotentin they abound. In England this type of steeple was never employed on so grandiose a scale, but its use has been brought into requisition, since the Gothic revival, pretty frequently. When funds are not forthcoming for the erection of a spire, perhaps no termination is more pleasing than the gabled one. As a remarkably fine example of a modern "saddleback," the tower of St. Matthias, Stoke Newington, one of Mr. Butterfield's most original designs, may be singled out for special mention. The treatment of the common brickwork, relieved with a very little stone dressing, is most masterly; while the manner in which it rises at the east end of the nave, with the aisles continued along its sides in lieu of transepts, is among the finest things modern Architecture has seen. At St. Luke's, Kentish Town, is a lofty cruciform "saddleback," occupying the same position, and resembling in general contour the German ones alluded to above.

‡ The south-eastern spire of Gelnhausen has a similar, but more marked, inclination.

(To be concluded.)

SWANSEA Market is approaching completion, the original contract having been carried out; but there remains yet to be done the additional work recently decided upon by the Council, of putting the western side into something like consonance with the new building.

Professional Items.

BEDFORD COURT, LONDON.—The large block of residential flats now being built here will be equipped with three electric passenger lifts and one electric goods lift. The whole of the work, including motors, electric lights, bells, and indicators, will be carried out by Messrs. Easton, Anderson, and Goolden, Limited, of Erith.

BLAGDON.—The restoration of Blagdon Church Tower is now complete. The restoration was entrusted to Mr. Frank Wills, Architect, under whose supervision the contractors, Messrs. Wm. Cowlin and Son, have carried out the work, every endeavour being made to discover any relics of the old structure, in order that a faithful reproduction should be ensured. With this end in view no trouble was spared in searching the neighbourhood, where portions of the original work were supposed to be, and which had been removed when the first so-called restoration took place. The work was commenced about Easter, when several weeks were spent in encircling the tower from bottom to top with a gigantic scaffolding. This being completed, the whole of the balustrading of the tower was taken down. There were originally on top a turret surmounting the staircase, three large pinnacles at the other corners, and four smaller ones midway between. These had all been removed some years ago, as they were considered unsafe. An examination of the Church building revealed one of these pinnacles, which had been placed above the chancel. Following this original design, the whole of the pinnacles have been restored with their masoned crockets in the same manner as formerly, so far as discovered remains of the originals gave evidence, and are executed in stone from the Lulsgate Quarry, which was undoubtedly the same whence the stone came years ago. The large pinnacle is 16 feet high, and the smaller ones are of proportionate dimensions. The fretted and moulded parapet surrounding the tower has been faithfully reproduced, all existing stones being re-used and jointed together with slate dowels so as to prevent a repetition of the damage done by the previous use of iron cramps, which had caused much disintegration of the stone. The above was all that had been originally intended to be done, the cost of which was about £600. But on examination of the lower part of the tower it was found that the original west window had been shortened at some time or other, and the door of the tower had been made much higher than at first, a portion of the original sill of the window being discernible, as also was the label course from which the arch of the door sprang. There were also found the moulded springers of a groined ceiling inside the porch. The two floors of the tower were found to be in a ruinous condition; these extra works have been carried out. The ringing chamber has been taken away, and an elaborate groined ceiling of Gothic fan tracery of the Somersetshire type has been constructed, which enhances the effect on entering the porch. The old west window has been taken out, enlarged to its original size, and filled in with cathedral glass by Messrs. J. Bell and Son, of College Green, Bristol. The exterior part of the tower has been repaired wherever it was found necessary.

BORDESLEY GREEN.—An iron mission room has been opened in Cherrywood Lane, Bordesley Green. The building, which is lined throughout with wood, will accommodate 160 persons. The contractors were Messrs. E. C. and J. Keay (Limited) and Mr. J. Hyde.

BRISTOL.—The re-opening of the Moravian Church, Maudlin Street, which has recently been rebuilt on the foundations of the old Church, which dates back to 1756, has taken place. About 30 years ago the level of Maudlin Street was raised, and then the Church was left at an inconvenient depth below. It has long been the wish of the congregation to raise the edifice up to the street, and this has now been done and the Church practically rebuilt, at a cost of £2,000, towards which £1,120 has been raised. Beneath the Church is a spacious schoolroom, 51 ft. by 30 ft., a meeting-room, and other offices, all of which are well lighted, owing to the natural fall of the ground. Externally the buildings are designed in accordance with the style of Architecture which prevailed in the last century. The Church is faced with red brick, with stone dressings, the porch being entirely of stone, with well-designed doorhead, carved by Mr. Gilbert Seale. The lower portion of the walls have been rough cast, with pebble dashing, making a pleasing contrast to the red brickwork above. The roofs are covered with Brosley's tiles. On entering the Church from the porch, which is paved with black-and-white marble, one of the most noticeable features of the interior are the beautiful stained-glass windows. The Church provides seating accommodation for 230. The contract was taken by Messrs. Cowlin and Sons in July last, under the supervision of the Architect, Mr. Edward Gabriel.

CHELTENHAM.—A new Chapel at Cheltenham College was recently opened. The Architect was Mr. Prothero. Much, however, remains to be done before the Chapel can be pronounced complete. Plain glass in the windows will not satisfy the college authorities, and the simulacrum under the east window is merely the emblem of that which it is desired to establish in the future.

CHESTERFIELD.—After being closed several months for purposes of restoration and decoration, the old Chapel in Fider Yard, Saltergate, Chesterfield, has been re-opened.

CONSETT.—The New Theatre in Front Street is now completed. There are three main entrances from Front Street, and there are three emergency exits, besides those from the stage. The auditorium is 43 ft. wide by 52 ft. 6 in. in depth. The pit floor has a slope of 2 ft. 6 in. from the back to the proscenium, and will comfortably seat over 600 persons. The stage is 37 ft. 6 in. wide by 31 ft. in depth, with all the requisite outlets, artistes' entrances, dressing rooms, &c. The ceiling of the auditorium is done in Lincrusta Walton and decorated, and the circle and gallery fronts covered with asbestors decoration, and rendered fireproof. The plans were designed, and the building carried out, under the supervision of Mr. W. S. Shell, of Consett.

DERBY.—The Education Department has sanctioned the loan of £9,470 for the erection of a new school at Pear Tree. It was originally intended to supply accommodation for 600 children, at a cost of £8,300. It has been found that to complete the block for 1,000 would only cost £10,000, and this the Building Committee recommends should be done.

DOUGLAS.—Opinion seems to be gaining ground that the Town Council, in deciding upon the site in Ridgeway Street for the new municipal buildings, which can never be made to hold suitable town buildings, are making a great mistake, the effects of which will be felt for generations to come. It is unfortunate that, just at this juncture, the attention of the Council, and more or less the attention of the public, is so taken up with other weighty matters—such as the new drainage, the water supply, and electric lighting—that the equally important question of the municipal buildings is likely to drop out of sight, and if the Council proceeds to carry into effect the policy to which it has already pledged itself, there is reason to believe that an irretrievable blunder will have been committed.

FARSLEY.—At a recent meeting of the District Council, the question of widening the town street was discussed. Mr. J. Isle said this formed part of a big scheme, and the best plan in his opinion was to engage a surveyor to prepare a plan showing how best the whole of the main street could be widened to a uniform width of 14 yards. It was decided that Mr. W. D. Gill, Architect and Surveyor, should be engaged to prepare a plan.

FORT WILLIAM. — The plans prepared by Messrs. L. and J. Falconer, Architects, Blairgowrie and Fort William, have been accepted for the erection of a new post-office at Fort William. The stonework of the lower portion of the façade, as well as the cornicing, pediments, oriel windows, and other dressings, is of red sandstone, from Corsehill quarries, near Annan; while the coursers which occupy the space between the oriel windows are of light blue rock from Duntrune quarry. Supporting the front are panelled stone pillars with moulded capitals and bases, and the lintels for doors and windows are carved on soffit, panelled on face, and surmounted by a projecting moulded cornice, with moulded and carved trusses at each end.

GOSFORTH.—A new Catholic Church has been opened at Gosforth. The Church, which is built of iron, is situated in Church Road, a little to the right of the main road from Newcastle. It has been erected by Messrs. Croggon and Co., of Liverpool and London, and will hold 400 persons. It is of one span, with Gothic windows, tinted glass, and sacristy.

GRINDLEFORD.—It has now been decided to erect a new Chapel at a cost of about £800 at Grindleford. It is expected arrangements will be made for an eligible site on the Sheffield Road. Plans of the new building are being prepared by Mr. G. Wesley Johnson, Architect, Whaley Bridge. The style will be Gothic.

HALIFAX.—The new Infirmary buildings of the Halifax Union are to be fitted with six passenger lifts and two service lifts, all worked by electricity, and supplied and fixed, with all necessary motors and gear, by Messrs. Easton, Anderson, and Goolden, Limited, of Erith.

HAYES MARKET.—Messrs. D. Rees and Co., Limited, have decided to accept the lowest tender of £5,123 sent in by Messrs. W. Thomas and Co., for the erection of their new premises, and the Architects, Messrs. J. P. Jones, Richards, and Budgen, have been instructed to see that the work was commenced at once.

HULL. - In the complete Bill for extending the boundaries of the county borough of Kingston-upon-Hull, and for other purposes, is included powers to construct a new bridge over the River Hull, with approaches thereto, to make new streets and improvements of streets, also to construct crematories in the Hull Western Cemetery and near the Hedon Road Cemetery. The financial clauses provide for the expenditure of £25,000 on the new bridge, £200,000 on the construction of new streets, and £3,500 on the construction of crematories.

LEEDS.—Several matters affecting the improvement of Leeds streets recently came before the Streets and Sewerage Committee of the Corporation. A resolution was passed approving of the widening of Burley Street at the Burley end of that thoroughfare. The City Engineer was requested to prepare plans for the widening of East Street, and report. The North Street improvement was discussed, and a resolution passed with reference to dealing with properties already acquired. It was also decided to improve Cardigan Lane, from Cardigan Road towards Burley.

LISBURN. — The advisability of engaging a competent electrical engineer to report as to whether electric lighting plant could be erected for the purpose of lighting Lisburn by electricity has been under consideration, and at a recent meeting of the committee, Mr. E. S. Dashwood, electrical engineer to Messrs. William Coates and Son, Belfast, was appointed consulting electrical engineer to the Town Commissioners, with instructions to report fully as to the best system to be adopted for lighting the town.

LIVERPOOL.—The new block of buildings at the corner of Gregory Boulevard and Radford Road, which will comprise a branch police station, reading room, fire station, mortuary, and inquest room has been opened. The site was purchased by the Corporation many years ago from the Gregory trustees. Some 12 months have been occupied by the builders in the work of erection, the contractor being Mr. J. J. Adams, of Nottingham. The plans were designed by the borough engineer (Mr. Arthur Brown), under whose personal superintendence the whole of the work has been carried out.

LIVERPOOL.—The old Alexandra Theatre, Liverpool, has undergone complete transformation, and little of the original building remains except the walls and roof. The principal external alterations include the erection of a large pediment on the top of the front elevation, and the whole of the entrances, except that to the gallery, are now brought to the front. The undesirable entrances in Coal

Street are either entirely abolished or used for exits. The theatre frontage is a large glass and iron shelter, illuminated by electric light. A new vestibule has been formed, with lobbies and double set of doors to prevent draughts, whence a wide corridor leads through a capacious crush-room, brightly decorated, to the orchestra stalls. The decorations are from Mr. Matcham's design.

LONDON. The Huxley Memorial Medal Committee has selected Mr. Frank Bowcher's design for the Royal College of Science medal. The competition produced about 40 models; and the one adopted bears on the obverse a good likeness of the distinguished scientist, and on the reverse a building of classic design in illustration of a college.

MANCHESTER.—An electric passenger lift is to be placed in the Technical Schools, the contract being in the hands of Messrs. Easton, Anderson, and Goolden, Limited.

MONTROSE.—The Rifle Volunteer Hall has been re-erected on a site in Mill Street. The preparation of plans was entrusted to Mr. John Sim, C.E. Utility more than ornament has been kept in view, but for all practical purposes the whole arrangements internally leave nothing to be desired. The building is now approaching completion, and it is intended to open it early in the year.

MUTHILL.—Some time ago the old Free Church, Muthill (from which the congregation had been evicted, owing to some legal difficulty in the charter) was purchased by Mr. G. T. Ewing, Architect, who has had the building converted into a public hall for the village, calling it the Ewing Hall.

NEWCASTLE.—The Redheugh Bridge, which has for some twenty-five years formed the principal means of communication between the western portions of Newcastle and Gateshead, is about to disappear and have its place taken by a better and more prepossessing structure. The present bridge had as engineer the late Sir Thomas Bouch, who designed the ill-fated Tay Bridge. The new one by which the Redheugh Bridge Company are about to displace it, has been designed by Messrs. Sandeman and Moncrieff, a Newcastle firm. The Redheugh Bridge Company are now advertising for tenders for the construction of the new bridge, which is to be built of steel, and to occupy the same position as the old one. The proposed bridge is to consist of two spans, each of 248 feet centres of bearings; two spans, each of 168 feet centres of bearings; and eleven spans, each of from twenty-seven to twenty-nine feet centres of bearings, together with cylinder foundations, steel-braced river piers, steel gas and water mains. It is estimated that the time occupied in its building will be from two to three years.

NEWPORT.—As many as 32 plans have been received for the proposed new infirmary at Newport, which is to cost £20,000. The assessor's report has not yet transpired.

PERTH.—Building operations have been commenced on the site of the new post-office. Large barricades have been erected, and the foundations are being dug.

PORTHCAWL.—A great deal of interest is felt in comprehensive improvements projected at Porthcawl. The scheme will take up all the land from the College to the Hatchin's Farm, and, if possible, from there to the Rest. It is intended to build a pier, a breakwater, and an electric tramway, connecting the pier with the Great Western Railway system, and making roads and buildings, sufficient capital for all of which would be raised amongst the members of a syndicate. The sum of £100,000 has been fixed as the nominal capital.

TIPTON.—The ceremony of opening the new post-office at Tipton took place on the 21st inst. The building, which is a handsome structure at the corner of Horseley Road, Dudley Port, was designed by Mr. Tanner (chief Architect of H.M. Office of Works), Mr. J. Mallin, Churchfield, West Bromwich, being the builder, and Mr. Atkinson clerk of works.

WINGATE.—The tender of Mr. John Davison, Contractor, Stockton, has been accepted for the erection of additional schools at Wingate, with sitting accommodation for 280 children. It has also been decided to purchase land from Messrs. Wilkinson for the erection of additional schools at Deaf Hill.

WOMBWELL.—The foundation stone of a new parish Church for Wombwell was laid on Monday. The old Church of St. Mary's was erected in the thirteenth century, and additions have been made from time to time. The old edifice, with the exception of the chancel, has been demolished, but the pillars and arches of the nave and chancel and the old western tower have been carefully removed, and will be incorporated with the new building. The new Church is to be built on the site of the old one, in the style prevailing during the latter part of the fifteenth century, and will be entirely of a South Yorkshire type. The nave will be 90 ft. long, 55 ft. wide, and 40 ft. high. It is intended to first build the nave and aisles, at a cost of £4,500, and this will provide accommodation for 750 worshippers. On the completion of this work, next autumn, it is hoped to remove the old chancel and proceed with the completion of the Church and the building of the parish room beneath. This will cost an additional £2,000, and, when the scheme is completed, the seating will be for 800 persons. Messrs. G. Webster and Son, Sheffield, are the contractors, and Messrs. C. Hadfield and A. R. Garland the Architects.

YORK.—A tablet in memory of the great Chinese Missionary, the Rev. David Hill, was recently unveiled at the Centenary Chapel, York. The tablet was executed by Mr. G. W. Milburn. The slab for inscription is of white marble with black letters. There is a white alabaster portrait and two figures representing "Faithfulness" and "Truth."

SOCIETY MEETINGS.

Glasgow Archæological Society.—"Recent Archæological Discoveries in the Parish of Lesmahagow" was the subject of a paper by Mr. James Young, Lesmahagow, and Professor Young, M.D., read at the last monthly meeting of this Society. Mr. Young described how he had discovered twenty stone cists, all having human bones in them, at Knocken, in the parish of Lesmahagow, showing that the place had been a burying ground in the stone age fully 2000 years ago, and also dealt with other discoveries. The most interesting thing he had to show was a stone implement, found on the farm of South Cumberhead this year. It was two feet long, and resembled in shape a Lochaber battle-axe. It was the biggest stone implement he had ever seen, and he thought it would be admitted that it exceeded in size anything of the kind ever before discovered.

Mr. J. R. FINDLAY has been peesented with the freedom of the city of Edindurgh, in token of their respect for him, in recognition of his public spirit as a citizen of Edinburgh, and in testimony of their appreciation of his munificence in providing the noble edifice for the Scottish National Portrait Gallery.

COLONEL J. T. MARSH, R.E., an inspector under the Local Government Board, held an inquiry at the Town Hall, Leicester, last week, in reference to applications by the Corporation for sanction to borrow £49,836 for purposes of street improvement and sewerage.

THE Streatham Library Commissioners have resolved to establish a branch library at Balham, and to ask the Streatham Vestry to sanction the borrowing of £1,500 for the erection of a suitable building on the freehold site in Ramsden Road, Balham, which Mr. Tate has offered for the purpose.

MR. THOMAS H. ISMAY, of the White Star Line, has announced his intention to subscribe £1,000 towards the building of a new hospital in Belfast in commemoration of the 60th year of the Queen's reign. The fund now exceeds £22,000.

SANITARY TESTS.

By ARTHUR B. PLUMMER.

IN reading a paper on "Sanitary Tests," before the Northern Architectural Association, Mr. Arthur B. Plummer said:—Since reading my paper at the Sanitary Congress, Mr. Allen (of Messrs. Harriman and Co.), with as little delay as was possible, had a special model made, and a die thereupon prepared, and afterwards my special form of 6-inch sanitary pipes were cast and burnt in the kiln, and laid in the Manors Yard in the exact position of the former ordinary 6-inch pipe. The Northern Architectural Association Sub-Committee were invited, and the same representatives met in order to test the new pipes. The tests were again conducted as follows:—Each closet was charged twenty times in rotation, proceeding from top floor to ground floor and to yard closets, with 6 ozs. of charge and papers as before, and a two-gallon flush. Throughout the whole of these sixty flushes the whole of the charge from each closet came direct to the trap with the one flush. This was hardly ever the case in the whole of the tests conducted previous to the Sanitary Congress. There were openings made in the tops of the pipes, for inspection, and in the case of my pipes the charge floated in the water with great ease, whereas in the case of the ordinary 6-inch pipe the charge rubbed, and stuck along the bottom of the pipes. During the course of these sixty tests we again found (on the occasion of the thirty-second charge) a slight temporary stoppage in the trap (which was the same Buchan trap that had been used in the former Sanitary Congress tests). We found, also, at the fifty-eighth charge a temporary stoppage at the bend, which was also the same bend we had used before, and which had a hole in the top for inspection. However, of the total amount of 360 ozs. flushed into the drain, 297 ozs. had been flushed out after the sixtieth flush, and 28 ozs. was taken out of the trap, the remainder being in the drain. It was next proposed that another course of tests be started, with a second or alternate flush of water, only without any charge. I, however, felt that a further course of tests, the same as the last, would be more valuable, though severe. The result of this second course of sixty flushes was all that could be desired, every charge again came direct with each flush into the trap, and there was no obstruction of any kind anywhere at any time. 360 ozs. were again put in the drain, and 367 ozs. were flushed out, including the slight necessary extra weight of water. Having become convinced in my own mind that this form of pipe is an improvement for flushing purposes, I next consider the question of cost. I find that for an ordinary terrace or villa house the total extra cost of these drains, as compared with the ordinary drains of the same external diameter, would be 2s. or 3s. per house extra. The pipes, I may say, are now to be made with the sockets flat on the underside.—Mr. Frank Caws, Sunderland, in opening the discussion, said they as an Association should be proud to think that one of themselves had brought about such an important change in drain pipes, as he was sure Mr. Plummer's improvement would be recognised by the profession at large and all interested in sanitation. He hoped and believed that that pipe would clear all other pipes out of the market. He thought it would do so because there was common sense in it. He moved a vote of thanks to Mr. Plummer for his paper. Mr. Bruce (Messrs. Badenoch and Bruce) seconded the motion.—The Chairman, in putting the motion to the meeting, hoped it would not go forth to the public that that Association approved of the two-gallon flush. There were miles upon miles of the old class of pipe which could not be taken up for a long time, and he thought they should have as great a flush as possible. The motion was carried heartily, and Mr. Plummer returned thanks.—During the evening there were on view the best sets of sketches prepared by Mr. H. Rains and Mr. S. M. Mould, and the best sets of measured drawings by Mr. S. M. Mould and Mr. B. Procter.

EXTENSIVE improvements are about to be made on the Mid-Kent line of the South-Eastern Railway Company. New stations are to be erected at New Beckenham and Lower Sydenham, and a bridge constructed in place of a level crossing.

A BIG SCHEME OF LONDON IMPROVEMENTS.

IN addition to the Bills dealing with the water question, the London County Council, on Monday, deposited five measures to carry out various London improvements. Their General Powers Bill proposes the construction of a new street from Tabard Street to Borough High Street, a widening of Long Lane, a widening of Battersea Park Road, and in connection therewith a widening and improvement of the bridge carrying the West London Extension Railway over the road, a widening of Holloway Road, and a widening of Old Street and Goswell Road. In connection with the construction of the new street in Southwark, it is proposed to purchase and appropriate towards the site a portion of the grounds of the Parish Church of St. George in the Borough. The widening of Old Street and Goswell Road is to be made on the northern side of Old Street and the eastern side of Goswell Road, commencing in Old Street at Central Street, and terminating in Goswell Road at Ludlow Street. Land is to be taken for fire-brigade purposes on the north side of Grosvenor Road and at Homerton. The estimate of the amount which the Council require to expend out of borrowed money or money raised by the creation and issue of stock for the purposes of the Act are:—For the new new street in Southwark and widening of Long Lane, £207,400; and for the other widenings and acquisition of lands, £228,840; total, £436,240. The proposed

SUBWAY BENEATH THE THAMES

from Greenwich to Millwall—which is the subject of a second measure, is to extend from a point at or near Brewhouse Lane, Greenwich, to a point at or near the Island Gardens, Poplar. A third measure—the London County Buildings Bill—recites that the Council have no central office or premises adequate for the conduct of their administrative business, and no sufficient accommodation for their officers and staff; that it is impossible to provide at the present premises of the Council and adjoining buildings such accommodation, and that the business of important departments is necessarily conducted in such scattered houses as can be procured in different streets. Estimates have been prepared by the Council as to the amount which they will require to expend for the purpose of the Act, and these estimates amount to £851,000. By their Improvements Bill the Council propose to make an

EMBANKMENT WALL,

and an embankment on the foreshore of the Thames at Chelsea, commencing at the termination of the existing embankment at or near Battersea Bridge, and terminating near Seaton Street; a widening of Cheyne Walk in connection with the improvement just described; a new street commencing at the junction of Great Prescott Street with Mansell Street, and terminating in Little Tower Hill and Upper East Smithfield, opposite the northern end of the Tower Bridge approach; and a widening of the Strand, commencing at the eastern end of the Churchyard of St. Mary-le-Strand, and terminating at the western end of the Churchyard of St. Clement Dane's. The estimates of expense are: Chelsea Embankment, including Cheyne Walk widening, £64,000; new northern approach to Tower Bridge, £214,000; Strand widening, £569,130; Tottenham Court Road widening, £47,860; total, £894,990. The Bill contains a clause under which the lands in certain defined improvement areas will be subject to a "betterment" charge.

THE famous Bonomi-Cereda Gallery in Milan is about to be sold by auction. Among the paintings are several valuable works by Bernardino Luini, Borgognone, Bolaffio, Enea Salmeggio, the Lombardian Raphael, and other masters of the Lombard and Venetian schools.

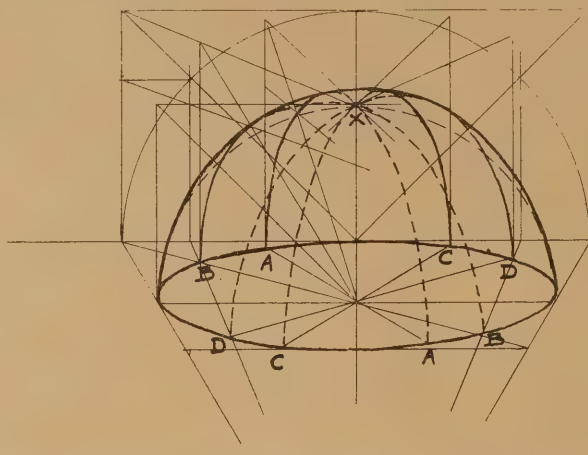
THE foundation-stone of an extension of the Jubilee Almshouses, Greenwich Road, S.E., was recently laid. The almshouses, originally built to celebrate the jubilee of George III., were added to and partially rebuilt in the year of Queen Victoria's jubilee. The present addition consists of four houses, the total cost of which is borne by Mr. Cox.

Correspondence.

PERSPECTIVE.

To the Editor of THE BUILDERS' JOURNAL

DEAR SIR,—In your issue of yesterday's date, there is an explanation given by Mr. Cummings as to the method in which to put a dome into perspective. Excuse me if I point out that the method described is not and *cannot* be correct. Any person considering the matter will know that it is both theoretically and practically impossible



for any person to see the apex or highest point in a dome unless he is at least as high as that point, and that in no case will he see that point on the outline of the perspective representation except when his eye is exactly on a level with it. But according to Mr. Cummings' method, the highest point of the dome is also the highest point in its perspective representation.

With all respect to obverse opinion, I think the method, of which I send you an outline herewith, is more correct, and certainly explains itself. Imagine the dome to be a ribbed one, and first put into perspective the ribs, which will be a series of vertical semicircles crossing one another at the centre (*see* AA, BB, CC, DD, in sketch), and at the apex (X). It is obvious that the outline of the dome will be a line drawn tangentially to the outlines of these semicircles.

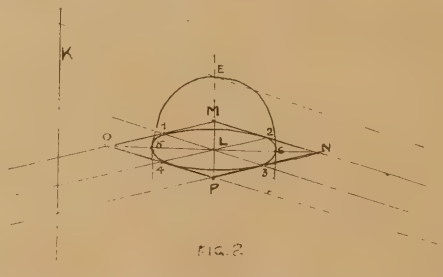


FIG. 2.

It would be a pity if students referring to your most excellent paper were misled by any article therein, so you may be glad to correct any false impressions made by the article in question.

I am, dear Sir,
Yours, &c.,
EDWIN BRADBURY.

3, Brighton Square,
Rathgar, Dublin,
December 10th, 1896.

COMPETITIONS.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—I was glad, in your last issue, to read Mr. A. R. Jemmett's hearty endorsement of the article on Competitions, of December 16th, as drawing attention to a matter that calls for grave reforms. For this reason, which Mr. Jemmett will approve, I feel it well to point out, that he makes an unsound criticism when he says:—"I would, however, like to point out, that of the large sum of money you refer to in your article as spent every year by the profession, by far the greater part is paid away in assistance on the drawings, and so circulates from the elder to younger members, not leaving the profession at all." Mr. Jemmett here falls into an error, of which the political economists have been unanimous in attempting to disabuse the public mind; to be brief, he has not distinguished between *productive* and *unproductive* labour. Competitions, in so far as competing is an unproductive labour, render the labour of those who help to produce the drawings unprofitable also; it is, therefore, lost labour to the profession, and for convenience the value of that lost labour was stated, according to precedent, in pounds sterling. The conjectural sum of money named was the *representative value* of the labour lost. A parallel case may be stated thus:—if a glazier, for advertisment or otherwise, broke his windows to the value of £100 and paid other glaziers to mend them, the glazier trade would manifestly be at a loss by the incident, precisely to the extent of the £100 the sum representing the value of labour absorbed in producing nothing.

Yours obediently,
THE WRITER OF THE ARTICLE.

KEYSTONES.

FOR some two months past a scheme has been on foot to erect a memorial in Westminster Abbey to Sir Walter Scott. The total amount wanted is £600, and though £400 has already been subscribed, the project is hanging fire for want of the remaining £200.

THE Admiralty is about to place orders for 12,000 tons of armour for the five first-class battleships of the "Canopus" class which are now in course of construction. All this will be manufactured in Sheffield, and the order for the bulkhead armour has already been received. The whole is to be made of Harveyised steel.

THERE is now on view at Mr. Draycott's Gallery, in New Street, the model of Bruce-Joy's well-known marble bust of the late Dr. Benson, from which Messrs. Boussod, Valadon, and Co., of the Goupil Gallery, are publishing half-scale replicas in a patent plaster which has the solidity and surface appearance of marble.

AN addition to the Sick Children's Hospital, at Aberdeen, is to be made in the form of a home for nurses, and plans have been passed by the Town Council Committee. The home will be situated on the east side of the hospital, and of three stories in height, with attic and basement. The estimated cost of the building is £2,000.

THE Admiralty has definitely resolved upon the extension of the naval depôt at Chatham. Two schemes are to be carried out—namely, the erection of naval barracks on a considerable scale, and the building of a new hospital for the reception of naval patients, royal marines, and dockyard accident cases.

WE understand that the management of the Building Trades Exhibition, 1897, offer a premium of £10 for the best design for a poster, to be used in advertising the exhibition. The adjudicators are Mr. Seymour Lucas, A.R.A., Professor Banister Fletcher, and Mr. H. Greville Montgomery.

No district has fewer facilities for communicating wtth the outside world than the Lake District and Westmorland, and to reduce the inconvenience several light railway schemes have been mooted, and some of them have already been described. The latest project is for a line between Kendal and Kirkby Lonsdale. There is already railway communication between the two places, but the route is circuitous and very inconvenient.

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(COMPETITION FOR CORONER'S COURT, POPLAR—SKETCH OF MESSRS. WIMPERIS & EAST'S DESIGN.)



(EXETER CHURCH COMPETITION—DESIGN BY W. A. PITE.)

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 100. **Wed., January 6, 1897.**

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A Last Word on Peterboro'. No Artistic question within recent years has surely ever stirred public feeling in England, so strongly as this one of the Peterboro' Restoration, and it is pleasant to see that the Art loving public are following the lead given by the recent letter in The Chronicle, from The Architectural Review, and taking the right side — the side against lay vandalism and clerical indifference to Art. There has been so much written and spoken about the subject within the last three or four weeks, that one would think all possible points that could be raised had been raised, and all the arguments argued out. But there is one remarkable article in the present issue of The Saturday Review, headed "Must Peterboro' Perish," which deserves more than passing notice. The vigorous and lively English in which it is written is an Artistic treat, and, if a somewhat *ex parte* defence of the Artists against the "Restorers," is right in its main lines, and puts the case for the preservation of the Front so strongly and ably, that we recommend all our readers who are interested and roused by the recent stupid letter of the Dean and Chapter, to very attentively study it. The principal point which the Dean made in his last letter, viz., that only the northern gable is proposed to be touched, and that it will be taken down and "rebuilt stone by stone" (most convenient and wearisome of phrases), is mercilessly shattered, and leaves the author of it without the possibility of a satisfactory answer. It will be interesting to see if a reply is given ; it will certainly be most amusing if it comes. It will be almost, but surely not quite, as amusing as the replies of the Editor of The Builder to Mr. Wilson's recent pillory of him in The Daily Chronicle. Really, we are very sorry for The Builder. Until lately the letters of the Editor of that paper to The Times and The Chronicle were only, as Mr. Wilson calls them, "regrettable," now they are positively pathetic. They are pathetic because it is so sad to see the Editor of a journal supposed to represent Architecture, and which has done such good service in years gone by, giving the position of his paper (which, as a weekly Architectural journal, should be the leading one) away so completely, and losing publicly the dignity of a position which he has, we willingly admit, well won. And this is not all. That most unfortunate and unnecessary phrase about "Art-Architects" and the Society for the Protection of Ancient Buildings, convicts the Editor in his own words of a most amazing ignorance, not only of the standing of the Artists he so foolishly criticises, but also of the nature and extent of the work they have done in the way of Church repair. He classes them in a word with Carlyle's "damned dilletanti." Some of the most delicate and difficult operations necessary to keep old work preserved have been undertaken and successfully carried out by them, work in comparison to which the Peterborough problem is simplicity itself. If a list of these works were given to the public, it would be astonished to find what the anti-scrape people have done in regard to the preservation of the priceless art treasures of England and other countries, and, moreover, let The Builder understand, at a sacrifice of time and care without a parallel in its way, and with an unselfish devotion to Art, the like of which is seldom seen or heard of. Did the Editor of The Builder know of this when he wrote to The Chronicle? If not, his ignorance for a man in his position is astounding ; if he did, and with that knowledge wrote slightingly of these men, what answer has he to make in defence? We leave that to our readers, and the reply is not a difficult one.



IRON ELECTROLIER, DESIGNED BY GEO. C. HAITÉ.

ECCLESIOLOGICAL NOTES FROM NORTH GERMANY.

BY THE AUTHOR OF "LONDON CHURCHES, ANCIENT AND MODERN."

(Concluded.)

THE vast Minster at Herford‡ was planned for a pair of western steeples, but the southern one has only been completed. Its tower, surmounted by a tall spire of slate relieved with scallop work, has the peculiarity of two gables on each face. At Hildesheim, and in the district surrounding it, the towers of the Churches of St. Godehard and St. Michael have thin spires spreading out at their bases to meet the massive towers, like some of our Weald-of-Kent examples.

The tall, quadrangular western façades of Brunswick, Goslar, and its neighbourhood have already been mentioned, as have the steeples of the Halberstadt Churches. Those of the Dom at Halberstadt are of quite recent erection, their lofty belfry windows having been evidently copied from those in the cloisters. Puttrich and other writers on the ecclesiology of Germany give illustrations of this Church with a pair of quite low western towers, finished off square and capped with low spires. Now, the western steeples are very like the Lübeck ones.

Leaving Halle, and proceeding, first in a southerly direction towards Nuremburg, *viâ* Naumburg and Bamberg, and thence Rhinewards through Gelnhausen and Limburg, several fine tower-groups present themselves. The great Churches of Naumburg and Bamberg, which have many features in common, show two pairs of steeples, one flanking the western, the other the eastern apse or "choir."

Naumburg has been made the possessor of a fine group of steeples. Those placed at the angles formed by the transept and the eastern choir are mainly Romanesque. Square in their lowest stage, and opening on their eastern side into a small apse, they afterwards become octagonal, are finished off with a little Late Gothic work, and capped with bulbous domes. The two western steeples are almost entirely modern, but have been carried up according to the original designs, sufficient data having been forthcoming to go upon.

The light, open tourelles of these western steeples at Naumburg, and of the eastern pair at Bamberg, closely resemble the more familiar ones of Laon. Gelnhausen has a very pleasing group of steeples; a slender octagonal one flanks the apse on either side; another of the same shape rises at the crossing, and a heavy square tower, gabled on each side, and rising into a quadrilateral spire, stands at the west end. Although the Church of Gelnhausen is Pointed, the whole has the air of a Romanesque building; like St. Cunibert's, at Cologne, it is one of the most remarkable instances of the long duration of the German national style, its completion dating far on into the second half of the thirteenth century. Limburg Cathedral is another noble Church of the same age and class, but more advanced than Gelnhausen. It is not a large building, but the Durham-like grandeur of its situation, and the careful disposition of its seven steeples, invest it with an air of great size. Limburg should on no account be left unvisited by those making the tour of the Rhine, since it can be easily reached at the expense of a short railway journey along the beautiful valley of the Lahn, from Coblentz.

No sketch of German ecclesiology, however brief, would be complete without reference to the extraordinary quantity of mediæval furniture and decoration, which, in spite of the country's having been the cradle of the Reformation, its Churches have succeeded in retaining, and, curiously enough, by those belonging to the cities which were among the first to embrace the tenets of Luther.† The desirability of bringing these notes to a termination with the present volume, precludes any lengthy comment upon these remarkable *instrumenta ecclesiastica*; a mere list of them, with the *locales* of those most interesting and instructive to the student, being all that can be given.

High close screens‡ of stone, frequently retaining the Holy Rood and its attendant figures, are to be found at Wechselburg (an early and most interesting Saxon example), Naumburg, Meissen (these have two a-piece), Klosteck, Maulbronn, Gelnhausen, and Sitten-in-Vallis. All these belong to the Romanesque or Transitional epochs. Of complete Gothic rood-screens, or Lettner, as they are called in Germany, two more beautiful examples could not be found than those at Halberstadt and Oberwesel; while those at Magdeburg (begun on St. Valentine's Day, 1445), Marburg, Breisach, and Wetzlar should not be overlooked by the ecclesiologist. Frequently, the great rood is found, either hanging alone, or resting upon a beam, as, for instance, in St. Catherine's, at Osnabrück; St. Mary and St. Rheinhold, Dortmund; St. Ulrich, Sangerhausen; the Dom, and St. Catherine, Lübeck. In St. Victor, at Xanten,§ a beautiful Decorated Church of the extreme N.E., containing many objects of especial interest in stone, wood, and metal work, is a light open brass screen, from whose rich floriated ornamentation, candlesticks are formed. The *Sacraments-Hauslein* (always an important item in the furniture of German Churches), and other tabernacles terminating spirally, may be looked for in the Dortmund Churches; St. Mary, at Lipstadt; St. John, at Osnabrück; Münster Cathedral; St. Mary-in-Meadows, at Soëst; and in the Dom, at Magdeburg. Carved altar-pieces, tryptichal and polyptichal, exist in great profusion at Calcar and Xanten, most minutely and delicately carved and enriched with colour. Colossal specimens of this kind of reredos can be seen in the Pfarr Kirche and St. Peter, at Dortmund; in the Barfüsser Kirche, at Erfurt; at Halle, in the Ulrich's, Neumarkt, and Moritz Churches; and a particularly fine one at Schleswig. Other specimens may be named as existing in the Nicolai Kirchen, at Rostock and Stralsund; in the Breslau Churches of St. Elizabeth, Corpus Christi, and St. Mary Magdalene; at Dantzig, Lübeck, and Salzwedel.

The great coronæ at Hildesheim and Aachen are world renowned; the Cathedrals of Münster, Halberstadt, and Magdeburg also enshrine one or more; chandeliers of much elegance hang in the Pfarr Kirche, at Dortmund, and in the Churches of Erkelenz, Calcar, and Kempen. Of candelabra, those in the Minster, at Essen (eleventh century); the Cathedral, at Brunswick; the Dom and Liebfrau Kirchen, at Halberstadt; the Ober Kirche, at Frankfort-on-the-Oder; St. Cunibert, at Cologne; Magdeburg Cathedral, and the Busdorf Kirche, at Paderborn, are of exceedingly grand dimensions, and, where left standing in the body of the Churches, form remarkably picturesque items in the furniture. In the sacristy of the Cathedral, at Osnabrück, may be seen a wrought-iron herse-light, triangular in shape, and sustaining 15 candles, used for the office of *Tenebræ*. Many Cathedrals and Churches have metal fonts of great antiquity; those at Hildesheim and Münster‖ merit close study, as do those in Osnabrück and Bremen Cathedrals, and St. Godehard at Brandenburg. St. Mary and St. James, Lübeck; the Stadt Kirche at Wittenburg, and St. Cross, Hanover, possess metal fonts of later Gothic date. The finest carved choir stalls are at Altenberg, Calcar, Cologne (Cathedral and St. Andrew's); St. Mary, Dortmund; Erfurt (the Dom); Emmerich, Ermbeck; Halberstadt, Kempen and Xanten. Mediæval organ cases are found at Strasburg (Cathedral), Dortmund (St. Mary), and Lübeck (St. James); renaissance and revived classical ones are of constant occurrence.

The Cathedrals of Cologne, Strasburg, and Metz, and the Churches of Erfurt, Naumburg, St. Mary and St. Paul at Soëst, and St. Reinhold at Dortmund, boast goodly supplies of stained glass. Frescoes can be seen in the little apse opening from the north transept of St. Patroclus, at Soëst; at St. Nicholas, in the same town; at Brunswick Cathedral, and in the conch of the apse at the Liebfrau Kirche, Halberstadt.¶

The sacristies and treasuries (*Schatz Kammern*) of German Churches should always be enquired for and visited. In the treasury at Halberstadt is a magnificent array of copes, chasubles, dalmatics, albs, stoles, mitres, altar-plate, and frontals, processional crosses, reliquaries, illuminated books, all in a wonderful state of preservation. There is likewise a fine collection of vestments at Brandenburg and Speyer.

Taking it all round, Germany is indubitably richer, ecclesiologically, than France, and although, as regards much of the Middle Pointed work, her Churches are inferior, both in detail and dimension, yet they have all proved a source of great delight to one who spent two very happy holidays among them, who had long looked forward to visiting them, who now regards them as old and valued friends, and who has endeavoured to record his impressions of them in these notes, which, from the pleasure their compilation has afforded him, must, to his regret, be now concluded.

‡ This great Benedictine nunnery was dissolved at the Reformation, which seems to have been eagerly embraced at Herford, all its old churches being in Protestant hands. The abbesses of Herford and Essen, as well as the abbots of two other great Westphalian houses, Corvey and Stablo, held high office in the State.

† The Churches of the Rhenish provinces, which have always been remarkable for their adherence to Catholicism, are singularly deficient in mediæval *instrumenta*. This may be accounted for, primarily, by the terrible ravages this part of Germany underwent at the end of the seventeenth century under Louis XIV., and at the time of the French Revolution, a hundred years later. Secondarily, by the bad taste of Catholics themselves.

‡ The German rood screens in Cathedral and conventual Churches are distinguished from those in England by having their central portion facing the nave occupied by the people's altar, the entrances to the choir being at the sides. This arrangement has been preserved by the Lutherans down to the present time. The two rood screens at Naumburg close, respectively, the eastern and western choirs. That to the latter is an exquisite specimen of German first-pointed work. Here, however, the door is central. It is a pointed one of two openings, and the Holy Rood has been taken down from the loft and placed against the column between them. St. Mary and St. John have likewise been removed, and now flank the door on either side; the effect is not unpleasing. At Gelnhausen the wall-space in the centre of the rood screen is pierced with a large foliated circle, to afford those seated in the nave an opportunity of assisting at the choir offices.

§ Scott may perhaps have derived the idea for his screens at Lichfield and Hereford, from this one at Xanten.

‖ See Mr. Hanson's drawing in our No. for Dec. 16.

¶ Since the Gothic revival in Germany, many of the great Churches—notably those in the Rhenish provinces—have been extensively frescoed; as examples, the following may be quoted:—Neuss (St. Quirinus); Cologne (St. Mary Capitol, St. Cunibert, and St. Martin); Sinzig Church; Limburg Cathedral; the Minster at Essen; the Cathedral at Münster; and the Dom at Minden.

HERIOT'S HOSPITAL, EDINBURGH.

IT has only just been brought to our notice that in our issue of June 24th, 1896, an elevation and plan of this hospital were published without the author's name, and we have much pleasure in stating that these were by Mr. R. Shekleton Balfour.

MR. JAMES FORD, one of the best known builders in Montrose, died at his residence, Melbourne Cottage, on the 22nd ult.

THE window presented to Hawarden Church by the Armenians in memory of the recent massacres is approaching completion, and is to be unveiled to day.

ORDERS were given to close a number of uninhabitable houses in Glasgow. Mr. Lindsay, interim Police Clerk, reports, that since March 17th, 1891, a total of 409 houses had been dealt with.

THE "Hafruen" has arrived from Rockingham, W.A., with 540 loads of "Jarrahdale, Jarrah," aboard, to the order of McLean Bros. & Rigg, Limited, 1, Fenchurch Avenue, London, E.C.

AT a special meeting of the Burnley Town Council it was decided to accept the tender of Messrs. Smith Brothers, of Burnley, for the construction of the second subway under the canal at Yorkshire Street, for the sum of £1,227.

THE Peninsular and Oriental Company has lately added some good specimens of marine Architecture to its fleet. It is a wonder that nobody has yet undertaken to write a history of the service which is quasi-national in its interest for Englishmen. There must be a wealth of material.

AT a meeting of the Wishaw magistrates, a report by the Master of Works on plans for the erection of eight shops at Craigneuk, by Mr. John Wilson, Motherwell, was read. The report showed that the proposed building would infringe the Burgh Police Act, in as far as it did not leave the statutory space between present building and the one proposed, and permission was therefore refused.

THE Glasgow Corporation is about to consider a scheme for the straightening of the Clyde, which makes a great south-easterly bend between St. Andrew's Suspension Bridge and Rutherglen Bridge. It is proposed to cut a new channel across the King's Park. The original river bed could be filled up and built upon or converted into a public promenade.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

The Exeter Church Competition Fiasco.

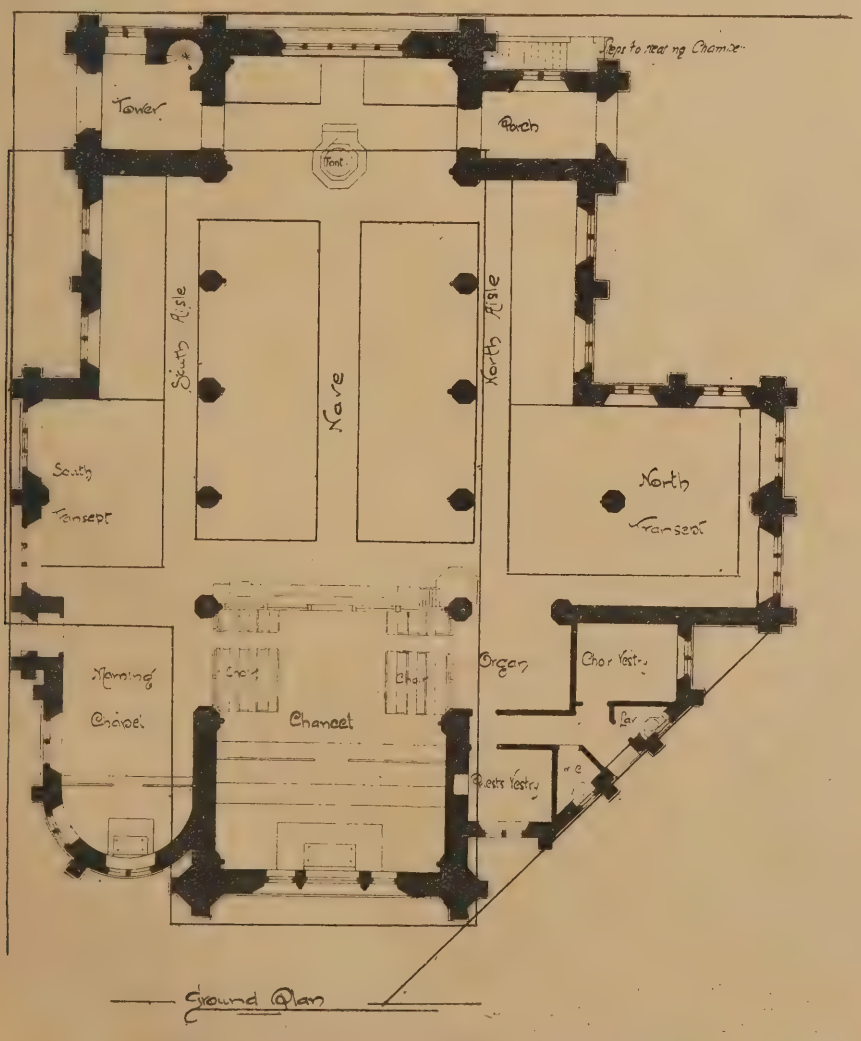
Second Notice.

THE designs we publish this week, with exceptions, fall below the standard we had hoped to keep for this competition, but, we are pleased to tell our readers, next week we hope to give some illustrations, specially drawn for the Journal by Mr. C. E. Mallows, of designs by Messrs. Wimperis and East, of London, and Messrs. Hall, Cooper, and Davis, of Scarborough, both of which reach a very high standard of excellence, and are admirable alike in the freshness, vigour, and originality of Architectural treatment, and in the economical and Artistic nature of their planning.

These drawings, together with those already illustrated, and those we publish this week, should form a pretty strong argument against the decision of the committee and their assessor; but we wish this protest to be more formidable still, and we therefore once more appeal to those who were competitors to send us on their designs, *accompanied by perspective sketches*, so that we can make a further selection and a still stronger case against one of the worst-conducted competitions in recent years. We hope by this means to teach competition committees a lesson which will be beneficial to them and to Architects generally.



EXETER COMPETITION. SOUTH ELEVATION OF DESIGN BY HORACE W. COLLINS.



EXETER COMPETITION. MR. HORACE W. COLLINS' PLAN.

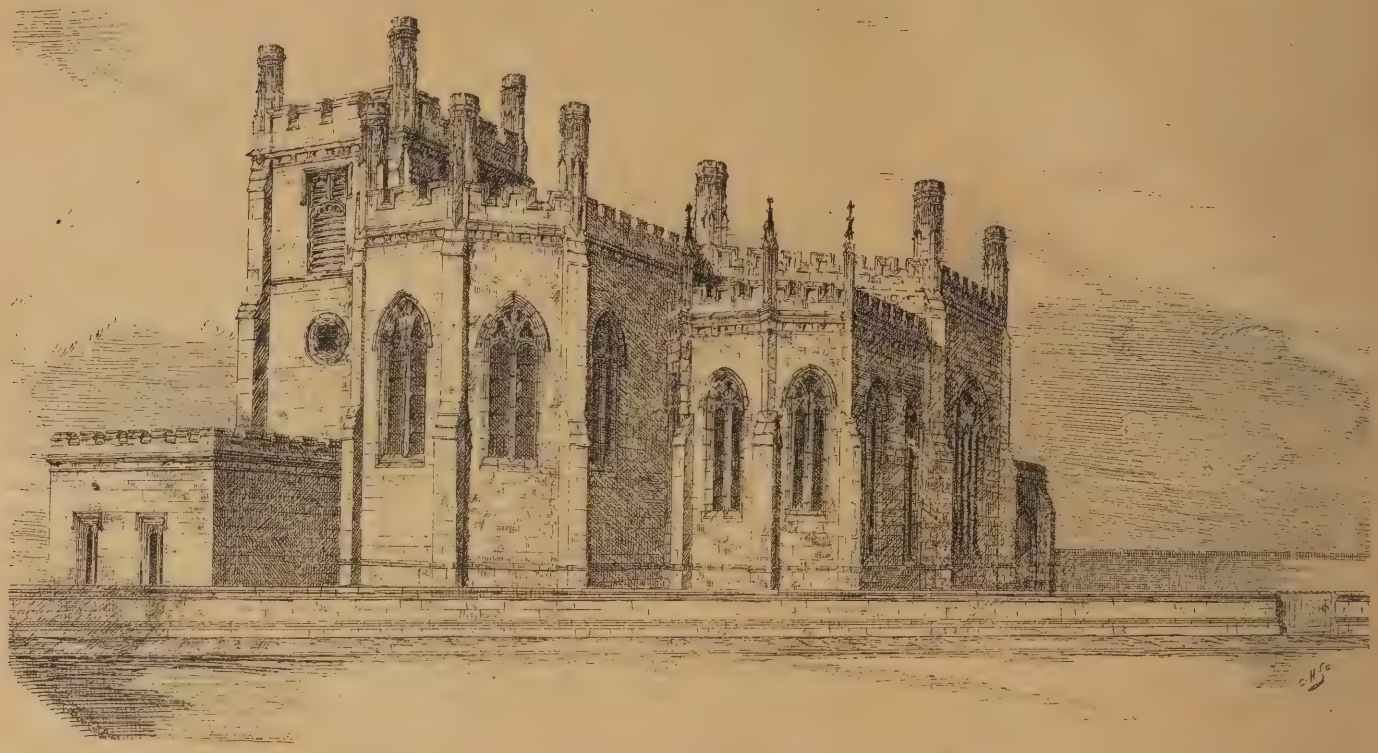
The design by Mr. Stephenson, which is illustrated by a perspective view and plan, is marked by a refined and dignified treatment throughout, reminiscent in parts a little, perhaps, of the work of masters of their Art, such as the younger Scott and Leonard Stokes, just as Mr. Robson's design, last week, was evidently inspired by the work of Mr. Bentley, or Mr. Newberry's by that of Mr. Pearson. But then all these Artists, whilst evidently students of the work of greater men, have not slavishly copied but managed to instil into their own designs a character and individuality quite their own.

For example, whilst the treatment of the windows in detail, of Mr. Stephenson's designs, has clearly been affected by the work of Scott in St. Agnes, Kennington, and by other of his Churches, the arrangement of the east end, and the simple and most effective exterior of the north transept is clearly his own, and moreover shows promise of future strength and power of design. The little turret at the foot, however, is not happily introduced and looks like an afterthought, whereas it might be made to form a more cohesive and base-like portion of this part of the transept end. Otherwise we have nothing but our congratulations to offer the author and to say we certainly should have placed his design amongst the premiated but for certain portions of his plans which are not altogether satisfactory or so Artistic as they might be.

Mr. Pite's plan has evidently been studied with a view to the preacher being seen and heard properly: there would be but few objections in this respect, and in other ways the plan is good. In some respects, however, the proportions of nave and aisles would not be altogether pleasant. The general character of the external treatment, which is a combination of fourteenth and fifteenth century Gothic, arranged in Mr. Pite's own way, can be judged by the sketch we publish herewith.

The other designs we illustrate this week do not call for any special remark; our readers will judge for themselves.

THE eastern window at Heckington Parish Church is to be filled with stained glass. The cost, about £1,400, will be borne by a lady parishioner.



EXETER COMPETITION.—DESIGN BY MESSRS. HOWGATE AND LEEDS.

A CHURCHMAN'S VIEWS ON CHURCH BUILDING IN LONDON.

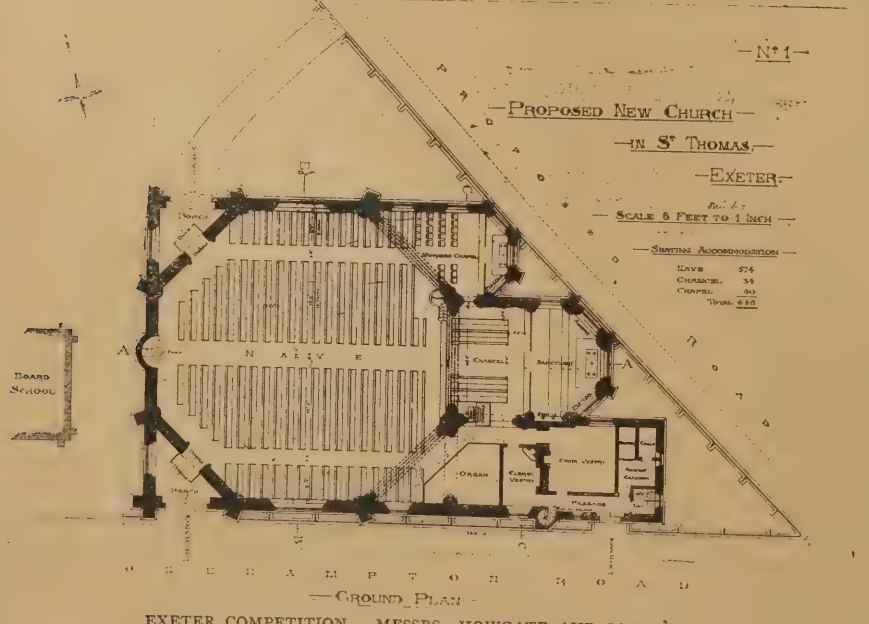
SPEAKING from observation, it is evident that not only has ceremonial become more generally ornate, but in the buildings that have been erected by High Churchmen in London during Dr. Temple's time, founders have not been trammelled in carrying out their particular devotional ideals as they were almost invariably in the days of Dr. Jackson. That prelate had a rooted objection to a second altar in a Church. It is not too much to say, that in Churches built during the last ten years this adjunct has become the rule rather than the exception. There are, indeed, Churches where, as at St. John the Baptist's, Kensington, a third altar has been allowed. This particular Church—a noble building by the way—instances another revival of an old ideal. Its chancel is enclosed by a massive rood-screen in stone, whereof the central figures are flanked by angels bearing the "instruments of the Passion" and numerous statuettes of saints. Not so many years ago, when the fine Church of St. Agnes was built at Kennington, it was understood that the figures, which it was at first intended to place upon its rood-screen would not be executed. Under Dr. Temple's sway, however, the original design has been quietly carried out, and the fine screen of oak, upon which room has been found for an organ, is one of

THE BEST MODERN EXAMPLES

of its kind in the country. A heavy rood-beam, with life-size figures, also adorns St. Cuthbert's, Earl's Court, a Church which is rapidly becoming a museum of modern ecclesiastical Art. Among the latest additions to its furniture is a huge and massive lectern of bronze, which rivals in importance the handsome pulpit on the opposite side of the nave. Here, too, a beginning has been made with highly decorative canopied stalls for the clergy, and these are merely items in an elaborate scheme of decoration which steadily approaches completion. These Churches are mentioned as typical, and by no means solitary, instances of the progress which is being made in the fulfilment of æsthetic ideals. And let it not be thought that beautiful Churches are peculiar to the rich West End. The East End of London boasts temples equally dignified in scope, though seldom so completely decorated. Of these the latest is the Church of St. Philip, Stepney, which replaces a smaller edifice in "Churchwarden Gothic." The present building, of the severest early English type, might readily serve as a collegiate Church, or even as a Cathedral for an East End diocese. The roof is vaulted in brick, with stone ribs throughout, and the double aisles are lavishly beautified with clustered columns. So stately a building clamours for ceremonial (not necessarily elaborate) and finished choral performances. Unless such be attainable, the purpose of a Church on such a scale is hardly perceptible. Splendid Churches are sometimes built at a

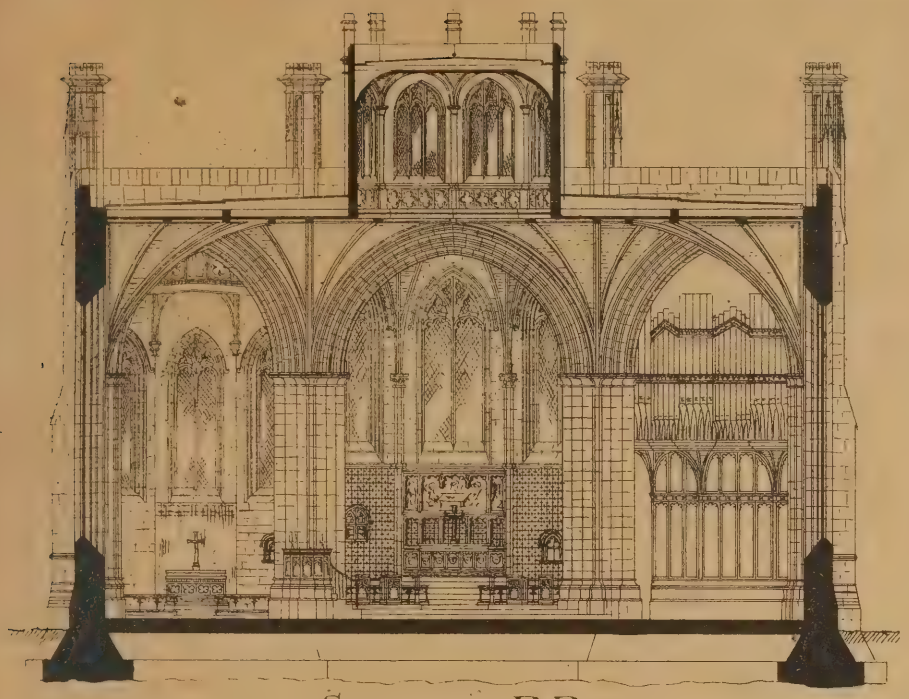
COST ALTOGETHER DISPROPORTIONATE

to the means in existence for the carrying out of services on a scale of due solidity and fulness. Old Churches, built in the ugly style of pre-Tractarian days, sometimes find it hard to hold their own against their modern rivals. St. Philip's Church, Clerkenwell, for instance, has now neighbours of more attractive aspect. But this old cradle of the ritualistic movement in Clerkenwell, which paved the way for the still more ornate services of St. Alban's, Holborn, and the well-known group of Haggerston Churches, has of late taken a new lease of life.



EXETER COMPETITION. MESSRS. HOWGATE AND LEEDS' PLAN.

NICKEL steel, instead of Harveyed steel, is to be used as the protective material for the new ships now being laid down. Between three and four years ago, the Harveyed process was adopted for the British Navy, and although it has in a great measure answered the expectations formed in regard to it, nickel steel is now thought to be less penetrable.



SECTION BB

EXETER COMPETITION. FROM MESSRS. HOWGATE AND LEEDS' DESIGN.

A SMALL COMPETITION AT POPLAR.

PROPOSED CORONER'S BUILDINGS AND MORTUARIES.

POPLAR, although in parts very picturesque, is perhaps not the most inspiriting place in all London for Architects. To be sure, there are not a few things hidden away amongst the slummiest of the slums which make beautiful pictures in themselves; we saw the other day many a subject near the Town Hall, which recalled a Whistler on a Mérigan etching, some good fragments of the Georgian days declining to decay, and some comparatively new work by Nesfield, very tempting for a sketch, but they all require finding. Who hears of students working at Poplar? Yet an afternoon's search after Architecture would yield some pleasant surprises—to an energetic searcher. Perhaps it is because the merits of Poplar as an Architectural hunting ground are not at first sight apparent, or it may be the subject for the competition is not exactly an attractive one; but whatever the reason, it is a fact that this very small competition was undoubtedly a very large failure. The accommodation required was: court-room, jury, doctors', police, reporters', witnesses', and private rooms for coroner, two mortuaries with common lobby, and caretaker's residence.

The problem was an easy one, the site, saving some restriction as to ancient light, good, the premiums (£30 and £20) ample, and the conditions fair. What more was wanted? Yet with all these things in its favour, Architecture has responded with but one solitary *Artistic* design (No. 12), and but one good plan, the winning one. The rest of the designs, without exception, would have disgraced an elementary student's competition in a local School of Art. Poplar may well complain, when, with so much to give to Artists, she gets nothing in return! Messrs. Wimperis and East's design, however, would have been a gift worth the having. The elevations are excellent, treated in a version of Renaissance which has much distinction in character. The front to the High Street, saving the rather curious high gable at the angle of the streets, is admirable and right, as expressing the semi-public nature of the building. But the authors have unfortunately failed with their plan; it does not compare with the winners, so far as the arrangement of the various blocks on the site are concerned. They are too distributed and there is not a sufficient amount of air space provided, otherwise the internal arrangements of the various rooms, especially those of the coroner's block, are good and much better than the first premiated. This latter design is by Messrs. Lansdell & Harrison. Beyond noting that it well deserves the place for the merits of the plan alone, and that the idea of the open space separating the mortuary from the coroner's court with a grass plot in the centre is excellent and goes more than half-way in placing the design first, there is not much to say. Certainly the least said about the elevation the better. We hope the authors will be recommended to reconsider them or work in conjunction with an Artist. Poplar is poor in many respects, but that is no reason why she should have poor building; we hope the authorities will see to this and let us have a building which at all events shall not be Artistically offensive, as this design undoubtedly would be if carried out as proposed. It would not matter if the design was only uninteresting, but it actually offends. At the same time it is only fair to say that it is the least objectionable, save one, in the room, but, then . With regard to the arrangement of the plan in detail, the coroner's court block is placed to the front of the site. The court itself faces the court-yard just mentioned and is nearly central on the block. The witnesses' waiting room, the coroner's retiring room, and the jury room occupy the angle of High Street and Finch Court. The mortuary block is placed at the extreme north of the site.

The second premium of £20 is given to Mr. H. Gilbert for a set of drawings showing some care in planning and no ability whatever in design. In this plan the coroner's court occupies the west angle of the street, and the caretaker's house is on the right. The waiting rooms, coroner's rooms, and other offices are at the back. The mortuaries are at the north of the site, and between the blocks there is an area for light and air, but not nearly so well planned as the first premiated.

The character of the design of Messrs. Wimperis and East may be judged by the accompanying sketch, a portion of the High Street front. The row of four windows with the small Ionic pilasters between, gives light to the coroner's court, and expresses well the public character of the room itself. The treatment of the doors is unaffected and pleasant. The door to the right hand gives access to the court and offices, and the other (to the left) is for the caretaker.

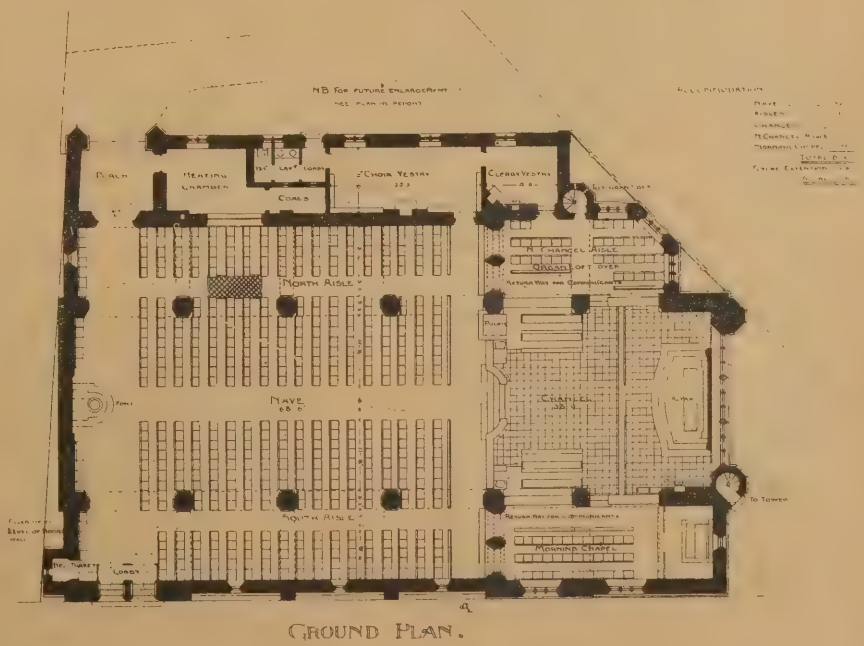
The design of Mr. W. T. Stocks (No. 3), differs from most of the others in separating the caretaker's block from the court block by an open gateway, and also in providing a fair amount of air space, but it agrees wholly with the majority as regards the design.

An alternative design, by Messrs. Lansdell and Harrison, shows the buildings arranged with due regard for light and ventilation, but otherwise there is nothing to call for special comment. The authors have evidently but one type of building for their elevations, and that is of the character just criticised.

A FALL of about 100 tons of rock has taken place on the Callander and Oban Railway, near the Falis of Cruachan Station. The *débris*, which has since been removed, caused grent delay to trains.

AT Kirkcaldy, it is proposed to commemorate the Queen's long and prosperous reign by founding, erecting, and handing over to the town, free of debt, an hospital for infectious diseases for the town and neighbourhood, provided by public subscription, at a cost of something like £20,000.

THE Cottage Homes scheme which the Oldham Board of Guardians have had under consideration for some years has advanced another stage. The Local Government Boar l has asked for information in respect to the land, and this will be forwarded in the course of a few days.



GROUND PLAN.

EXETER COMPETITION. MR. J. G. STEPHENSON'S PLAN.



DESIGN FOR
EMMANUEL
CHURCH
EXETER 3?
J C STEPHENSON

THE YEAR'S BUILDING TRADE IN DUNDEE.

THROUGHOUT the year there has been no lack of employment in any of the branches of the building trade. Indeed, so far as masons are concerned, the difficulty has rather been in a scarcity of men, and no relief could be obtained from other centres in Scotland, where trade has been equally brisk. The only serious trouble was the strike of hewers at the end of May for an increase of ½d. per hour in their wages. Their action brought about a complete stoppage of building operations in the city, but after a struggle lasting for a month or five weeks the men returned to their employment on the old terms. The rate of wages has, therefore, remained unchanged during the year—viz., 9d. per hour for builders (who have to contend against the inclemencies of the weather, without shed accommodation), and 8½d. per hour for hewers. The demand for houses of three rooms has been slack. In many parts of the city, too, there are numerous empty flats of four and five-roomed houses, accounted for partly by the fact that many people who were formerly content with dwellings of this kind in the city are finding their way to suburbs like Downfield, Wormit, or Newport, particularly the two last-named, with which there are cheap and easy means of communication. Thus, year by year it is becoming increasingly evident that Dundee has been over-built with dwelling-houses, and that if proprietors do not wish to throw away their money in the erection of property which will lie unoccupied upon their hands, their best policy is to invest it otherwise than in dwelling-houses. Judging by present appearances, there will be much less tenement building in 1897 than there has been for several years past. Dealing more in detail with the various works which have been begun, completed, or advanced during 1896, the first that claims notice is

The New Post Office.

This structure was begun about 18 months ago, and by the end of 1895 the foundation walls had been completed. The past year has seen the building rapidly advanced towards completion. The builders have completed the ground and first floors, and expect, with a continuance of open weather, to add the third and last story early in the season. The red stone structure erected by the Prudential Assurance Company in Meadowside is now approaching completion, the mason and plaster work being finished. In its construction many novelties have been introduced for the first time in Dundee, while the lavishness with which money is to be spent in internal fitting and decoration has never been equalled. Another block of business premises will be that begun some months ago for the Pearl Assurance Company, adjoining the Royal Exchange in Meadowside. The foundations have already been laid, and building will probably begin early in the year. The extensive bakery establishment for the Dundee Eastern Co-operative Society, Limited, in Clepington Road, has been completed, as has also the Girls' Industrial School in Blackness Road, which was opened on 24th June. The Dalgleish Home for Nurses at the Royal Infirmary is another important building of the year, although it is not yet quite completed. In ecclesiastical Architecture the only structure of the year is the new Church for Lochee Road U.P. congregation. In Dudhope Crescent a neat little building was erected for the work of Lemuel Mission. No building has been required by the School Board during the year, except a small addition to the Art department of Morgan Academy. In the department of warehouses, factories, and

Business Premises

generally, there has been little of a noteworthy character. The largest work of the kind was perhaps the huge store erected by Messrs. James Watson & Company, in Trades Lane, for the storage of whisky. Then Messrs. Smith Brothers, tailors and clothiers, have commenced the erection of extensive premises on the south side of Murray Gate. Malcolm Brothers, auctioneers, converted a set of warehouses in Commercial Street into commodious and well-furnished auction rooms. The Caledonian Railway Company put down new stables in Yeaman Shore. At the corner of South Union Street and Craig Street, Messrs. Watson & Philip, produce brokers and flour merchants, have erected a block, comprising business premises and dwelling-houses, while old warehouses in Craig Street have been extensively altered so as to suit the requirements of the firm. The establishment of Messrs. Andrew, Taylor & Co., manufacturers, Forebank Road, which was destroyed by fire, and the warehouses in the same street belonging to Messrs. William Watson & Co., which suffered the same fate, have both been rebuilt. Messrs. Marshall & Brush, Dundee Carpet Works, and Messrs. A. P. Mathewson & Co., Lower Pleasance Works, carried out extensions of their premises. The conspicuous feature of the year's building has again been the vast amount of

New Dwelling-House Property.

Villas, cottages, and tenements have gone up in all quarters, but the great bulk of this class of building has been carried on in the northern and north-eastern districts. Beginning with the north-east end of the city, we have to chronicle the erection of a tenement of dwelling-houses for Messrs. Malcolm, Ogilvie, & Co., in Lyon Street. This property brings the north side of Lyon Street, at its west end, to the corner of a new street which is to be named Cunningham Street. In Dens Road, Mr. James Burnett has put up tenements of dwelling-houses, and Messrs. Alexander Esplin & Sons have constructed properties in Dura Street. Further to the east, Balmore Street has been developed by the construction of dwelling-houses for Mr. Alexander C. Milne; in Baldovan Terrace, tenements have been built for Mr. William Foggie, Mr. John Dempster, and the Misses Langlands. In Maryfield district building has not been so extensive as in some previous years. Extraordinary development has taken place in the Fairmuir, Strathmartine Road, and West Clepington districts. In the central districts there has been comparatively little done in the erection of new dwelling-houses. From this statement, however, must be excepted the extensive scheme of dwelling-house property at present being carried out in the district bounded by Nelson Street, Victoria Road, and Bonnybank Road. The completed scheme shows altogether fifteen tenements, of which three have a frontage to Victoria Road. The Architects for the entire scheme are Messrs. M'Culloch & Jamieson, Whitehall Street, Dundee. Towards the west end there has not been much building during the year. Mr. Daniel Black put up a block of dwelling-houses in Benvie Road, and property of the same description was constructed for Mr. Charles Macintosh in Walton Street, and for Messrs. P. F. and J. Husband in Milnbank Road. There has again been a fair amount of building in

The Western Districts.

Messrs. R. and A. Lickley completed Rosewood Terrace, West Park Road, making in all 15 villa houses of a splendid type. The formation of Melgund Terrace, at the south end of Windsor Terrace, has also begun, three or four of the eight houses of which it will be composed being now on the way. A large amount of work has been done by the Sanitary Committee of the Town Council in the reconstruction of slum properties. The work has gone on briskly and uninterruptedly during the year, the districts to which special attention has been devoted being Scouringburn and Maxwelltown. A great deal has also been done by the sanitary department in the reconstruction of dairy premises. In every case the space of 800 cubic feet per animal is being insisted upon, while the structures have been greatly improved by paving and drainage works. As to the building

Prospects for this Year,

they are not so good as were the prospects for the past year. Still there are in view a sufficient number of large "jobs" to keep the trade fairly well employed throughout the year. Among these may be mentioned the Pearl Assurance Company's offices; the new buildings of the Royal Bank in High Street; a large block of business premises in Seagate, for John Robertson and Son, Limited, wine merchants; the vestry and hall for Dundee Parish Church; the proposed convalescent home in connection with the Convent of Mercy, at Lawside; the covering in of the cattle market; and the extension of the Eastern Necropolis.

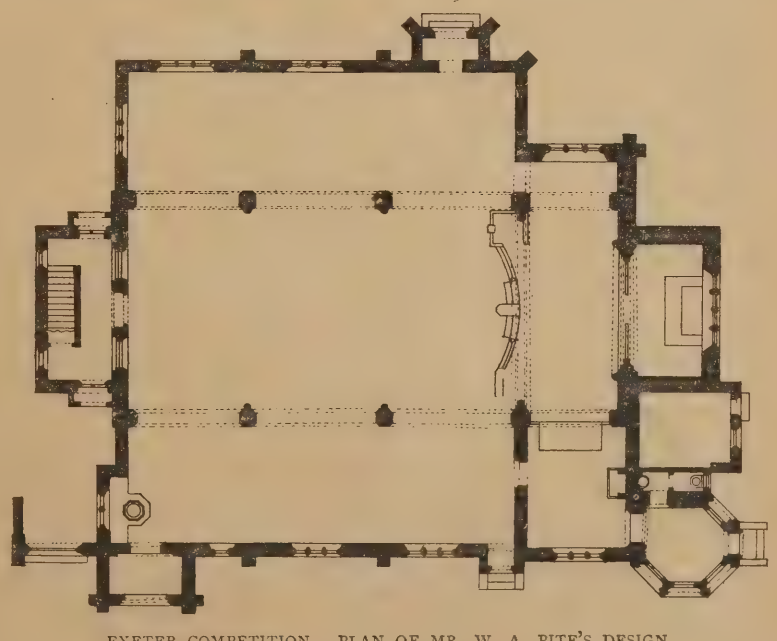
MR. PASSMORE EDWARDS has offered to provide, at a cost of £5,000, a Public Library building for the parish of St. George's-in-the-East, so soon as the Commissioners for Public Libraries have bought the freehold for a site.

THE Tramway Committee of Glasgow Corporation, after considering the offer by Sir William Arrol and Mr. G. Johnston to equip, free of expense, a section of the local tramways with motor cars, has decided not to accept the offer.

A MOVEMENT is on foot for placing some memorial of the author of "Tom Brown's Schooldays" in the Church at Longcote, Berkshire, where Judge Hughes read the lessons when his father was vicar, and with which he was associated for some 40 years.

SEVERAL alterations and improvements have recently been made at St. Bartholomew, Heigham. The chancel end of the building has been raised, whilst a new communion table has been provided. The seating arrangements of the building have also been re-modelled, so as to provide a central aisle.

BY the City and West End Railway Bill, which has been deposited for next session, power is sought to incorporate a company for the purpose of constructing an underground railway, over 6¼ miles in length, commencing under Bridge Road, Hammersmith, and terminating under Cannon Street, at a point near Budge Row. The capital required by the company is £3,150,000, upon which it is proposed to borrow a further sum of £1,050,000



EXETER COMPETITION. PLAN OF MR. W. A. PITE'S DESIGN.

Bricks and Mortar.

EFFINGHAM HOUSE, ARUNDEL STREET,
January 6th, 1897.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

As a test of the hold which Pre-Raphaelitism still has upon the popular fancy, the forthcoming exhibition of the collected productions of Ford Madox Brown, at the Grafton Gallery will be interesting. In his work, the principles of this particular creed are set forth with a plain directness that cannot be mistaken, and yet the assertion of them was not helped by any prominent part which he took in art agitations. The influence of his personality upon the public has for many years been too slight to gain for his pictures the popularity and attention given to the early works of such an artist as Sir John Millais. If the Grafton Gallery exhibition proves convincing, it will be by the absolute Artistic importance of the collection, and by his power to persuade the technical unbeliever.

THERE has just been placed upon the wall of Whippingham Parish Church, a tablet to the memory of the late Andrew Blake, for many years Her Majesty's land steward at Osborne House. Mr. Blake's grave is in Scotland, where he died, and the addition of this tablet is in conformity with a decision to invest Whippingham with the same memorial character as the Parish Church of Crathie and the private Chapel within Windsor Castle. In this connection it may be added that the decision has been made to place no tablets in the private service-rooms either of Balmoral or of Osborne. The Blake tablet was designed and executed at Windsor, the Architect being Mr. Nutt, who habitually designs the illuminated vellum covers for the programmes used by the Queen on the occasion of concerts before the Court.

IN rural districts the housing problem remains unsolved, and some startling facts come from Norfolk. We are assured that the Erpingham Board of Guardians had a family in the workhouse, the husband being outside and in good employment, but unable to find a cottage. The guardians called upon him to remove his children, and the upshot of it was that the man, having no home to which to take them, had to throw up his work and join them in the House. This story is no isolated case, but typical of a widespread state of things. Where are the builders?

MANY of the towns of France are at present awakening to realise their need for better sanitary conditions, and plans and systems for better drainage are receiving much public attention. That there is much need for improvement most British sojourners in France are quite convinced. Trouville, the favourite seaside resort, is among the pioneers in this crusade. When it is remembered that 14,000 of the summer population are visitors, to whom good sanitation is all-important, it will be understood that the condition of Trouville in this respect is of great moment to the native population. The municipality think it well to avoid the risk of another such scare as took place some years ago, when a well-known actress contracted typhoid fever in the town, and are about to adopt the Liernur system of ridding the town of the refuse products. This system has been in operation at Amsterdam since 1872, and has there gained credit for lowering the death-rate from 26 per 1,000 to 17 per 1,000. By this method a whole city has its refuse discharged each day to a central reservoir, where it is immediately treated with sulphuric acid, run into an apparatus heated by steam, and dried by a process of evaporation. The whole treatment is effected in closed vessels at a very high rate of temperature to destroy all decomposing agents, microbes, germs, &c. The sterilised matter left is a valuable and marketable manure ready for agricultural purposes, which more than pays the cost of treatment.

IN Durham, the Art Circle is a society of Artists holding exhibitions periodically with the object of producing a continual endeavour on the part of members to attain to, and maintain, a high standard in their works. Students of the School of Art (Durham College of Science) are also permitted to submit works for exhibition, such as are of sufficient merit being accepted. Messrs. Ralph Bullock, John Charlton, R. G. Hatton, Ralph Hedley, Robert Jobling, A. H. Marsh, A.R.W.S., C. W. Mitchell, George Rushton, C. J. Spence and Robert Spence, are all represented in the Circle's First Exhibition, which is held at the College of Science during this week, and to which admission is by presentation of card. A first exhibition can hardly show the Circle's effect upon its members, and will naturally be somewhat experimental, so that the students have been rather leniently dealt with.

MILLBANK PRISON is a thing of the past, and on the site will shortly be built a huge block of County Council model dwelling-houses. Negotiations for the purchase of the ground have been nearly completed with the Treasury, and already plans have been prepared showing how the land may be laid out to the best advantage. The price agreed upon between the Council and the Treasury is £22,242, and the cost of the proposed buildings is roughly estimated at £200,000, while £30,000 will be expended in the laying out of roads and in other necessary works. It is believed that accommodation can be provided for about 4,400, and, so far as the preliminaries have been arranged, it is intended to erect two separate blocks of buildings, with a broad avenue between, planted with four rows of trees. The Council is desirous of proceeding with the scheme at once, especially as housing must be provided for 1,500 people who will be displaced from Clare Market in consequence of the operations about to be commenced there.

THE Calcutta correspondent of the Times says that an archæological mission, visiting the Nepal Terai this winter, discovered the long-lost birthplace of Buddha. The discovery was made at Mauza Paderiya, near the tahsil of Bhagwanpur, in the zillah of Butaul, close to the general's camp. Here, near the *débris* of several ruined stupas stood one of Asoka's monoliths, rising about 10 feet above the level of the surrounding ruins, and covered with several pilgrims' records, of which one belongs to about the ninth century. The archæologist's attention was at once caught by this, and the pillar was unearthed to the depth of another 14 feet, when a well-preserved inscription of the great Emperor Peyaddassi, or Asoka, was found about 3 feet below the former level of the ruins. In this inscription, Asoka states that after having been anointed 20 years (about 239 B.C.), he came himself to the Garden of Lubini, worshipped, and erected several stupas and this column, on the very spot where Lord Buddha was born.

SERIOUS floods have occurred at Liverpool. On Christmas Eve the sewer burst, and gas and water-pipes were fractured owing to a subsidence of ground. Houses were flooded, walls carried away, and a hothouse 150 ft. long was demolished. Preparations were being made by the City Engineer and staff to repair the sewer when it again burst, with the result that another subsidence took place, leaving a hole in the ground 75 ft. long, 25 ft. wide, and 25 ft. deep. The basements of large houses in the vicinity of the floods are full of water and sewage, and it has been deemed advisable in one case to vacate a dwelling-house, the foundations of which have become damaged.

ONCE more the question of obtaining the historic "Physick Garden," at Chelsea, as a public garden is before the local authorities. It is almost the sole remnant of the picturesque old Chelsea left untouched by the modern expansion of London, but has been long practically useless for its original purpose, although kept in careful condition by the Apothecaries' Company. Should the Company decide to give up its maintenance, it will be surrendered to Earl Cadogan. The value of the site for building purposes is sufficiently obvious, but it is to be hoped that this quaint old relic, the last of many old English botanic gardens, will be saved for posterity. Its history is replete with interesting associations of Sloane, Banks, Linnæus, Miller, and Lindley.

DURING the past few days over half a dozen stone coffins containing human remains were discovered at Bellfield, Musselburgh, where excavating operations have been going on previous to the erection of a tenement of houses. They varied in size from 3½ feet by 2½ feet to 14 inches by 7 inches. In several cases a quantity of human remains were found inside the coffins, while skulls and other human bones were unearthed close by. An arrow flint in a very fair state of preservation was also dug up.

AT a recent sale of engravings at Christie's, an example of the excessively rare engravings of Sir Thomas Frankland's daughters, printed in colours, after Hoppner's picture by W. Ward, sold for 290 guineas; and nine examples from the "Cries of London" series, after Wheatley, brought a total of over £237. A fine series of autograph letters of John Locke, the philosopher, sold at Sotheby's for £155. Most of them were on business matters, and two or three had reference to "clipt" money.

IT would be interesting to ascertain whether the curious landslip which has taken place in the Homestead Road, Fulham, has any connection with the recent earthquake. The cavity which has shown itself in the road is said to be large enough for an omnibus to turn round in. It is evident that the ground in this part is in a somewhat peculiar state, as a steam roller sank some seven or eight feet into it near this spot about two years ago. Whether the present subsidence is due to the earthquake or not it is evidently the duty of the Vestry to make a careful investigation of the road and its surroundings.

AMONG the latest proposals set aside for further consideration by the committee of the 1900 Paris exhibition is that of M. Nublat, who suggests the erection of a small theatre, the scenery of which is to consist of reproductions of landscapes by famous French painters. The pictures selected are to illustrate every French district famous for natural beauty, and the stage is to be simultaneously occupied by *figurantes* wearing the costume of the district represented by the scene.

WE understand that the Leighton Memorial will take the form of a monument in St. Paul's, from the design of Mr. W. B. Richmond, R.A. Through his exertions the objections of the Cathedral dignitaries to a place on the walls of the nave has been overcome. The monument will, we believe, be an effigy of the President, and will cost £2,000.

THE Davy-Faraday Laboratory, which was opened last week by the Prince of Wales, and will form an annexe to the Royal Institution, where Davy and Faraday laboured, is admirably fitted up for scientific research. There are nine private rooms, and three fitted for special research, the students being admitted without distinction of sex or nationality. Under the guidance of Lord Rayleigh, Professor Dewar, and others, the students will have the advantage of the use of a collection of chemical and physical apparatus such as can be found in no other building in England. The instrument-room is fitted up with the best appliances obtainable from all parts of the world. From Germany comes optical instruments and standard glass measuring vessels; from France, calorimetric and other instruments of precision; and England contributes electrical instruments; in fact, almost the whole world has been laid under contribution to complete this magnificent gift to science.

As to the form which the memorial to Robert Louis Stevenson should take at Edinburgh, the discussion still rages. Mr. Edmund Gosse expresses a very strong opinion that "the memorial, whatever its ultimate expansion, should not fail to

start with the idea of a portrait in sculpture." Mr. Sydney Colvin, however (Stevenson's literary executor), is against the idea of a statue on the ground that the poet was not a man of statuesque proportions. He suggests a seated figure, or, better still, a kind of classical temple or Belvedere, on Calton Hill, with commemorative medallions. Stevenson himself would probably have preferred a statue. In his early manhood, chancing to come across a grave marked by a rude weather-worn stone among the Pentland Hills—the last resting-place of some warrior—he renovated the tombstone with his own hands, and, in one of the very last letters he wrote, he expressed heartiest approbation and sent a subscription for commemorating the poet Fergusson in similar monumental fashion.

A history of the Cistercian Abbey of Margam, in Glamorganshire, one of the interesting monasteries of Great Britain, has only really been within range of possible preparation for the last few years, when the materials for adequate research have been promulgated in various recent works. The deeds now known, which relate to this house, are very numerous, and they throw much light on the constitution of the Abbey and extent of its possessions and influence, also on the local history of many neighbouring places, and on the manners and customs and historical events of the Principality. Dr. Walter Birch, F.S.A., is preparing such a work, and it will be issued to the subscribers early in the new year. It will treat critically of several obscure points in the history of the Abbey.

AT last the white marble statue of St. Winefride is completed, and is on view at the studio of the sculptor, Mr. Joseph Swynnerton. The statue is of pure Carrara marble, almost 7 ft. in height, and portrays Winefride in the freshness and beauty of youth. In her left hand she holds a gilt crozier of ancient Celtic design, and in her right hand is the palm of martyrdom. The borders of her robes are adorned with quaint and ancient Celtic designs, picked out in dull gold. A low crown surmounts the veil, which drapes the head and shoulders, adding dignity to the figure. It is intended to offer the statue for a place in one of the spring exhibitions in London, and it will afterwards be conveyed to Holywell.

THE moving of the bog on the Kenmare Estate has fortunately been attended with less loss of life than might have been expected, seeing that no less than 200 acres of boggy soil, with a depth of 30 feet in parts, have swept down, and carried everything away before the rush for miles. Mr. Bram Stoker, in an Irish story published some years ago, the title of which, if we remember aright, is "The Snake's Pass," gives a graphic and weird description of the slipping of a great Irish bog.

FOUR pictures by Gainsborough have just been added to the collection in the National Gallery, to which institution they have been presented by the daughters of R. J. Lane, the engraver. Another addition to the pictures by British artists, is a landscape, "The Dewar Stone," by J. W. Inchbold, which was bequeathed by Sir Russell Reynolds. Two portraits of "Venetian Senators," belonging to the Venetian School of the sixteenth century, have been transferred to Trafalgar Square from the South Kensington Museum. The Department of Egyptian and Assyrian Antiquities of the British Museum has also been added to by a set of three inscribed cones in terra-cotta, containing the name of Amil Babbar, about B.C. 2200. These cones were mostly dedicated to Ningirsm, the fire god, and were often let into the walls of private houses and temples, in order to protect them from evil spirits. Cones of this description are found in large quantities in the neigbourhood of Warka, the ancient Erech, where temple dedicated to the fire god stood in ancient times.

THERE seems to be growing up in America a definite appreciation of the work of British Artists. Since the Chicago Exhibition, the demand for pictures painted in this country has perceptibly increased on the other side of the Atlantic, and the contributions by our Artists to American exhibitions have become more numerous. The first annual show recently opened at the Carnegie Art Galleries, at Pittsburg, included a considerable number of canvases sent from London. Among these were Mr. Whistler's "Fur Jacket," and his portrait of Señor Sarasate; Mr. Orchardson's "Master Baby"; Mr. Alma Tadema's "Tibullus in Delos"; a study for "The Widower," by Mr. Luke Fildes; the "Lady in Brown," by Mr. Lavery; and "The Merciful Knight," by Sir Edward Burne-Jones.

DESIGNED by M. Girault, the Architect of the Palais de l'Industrie, M. Pasteur's tomb is on the model of the celebrated mausoleum of the Empress Galla Placidia, at Ravenna. Over the entrance is the inscription "Ici repose Pasteur." The walls of the crypt are covered with frescoes representing Faith, Hope, Charity, and Science. Numerous symbols and inscriptions of Pasteur's life and labours are also displayed.

NEARLY a million sterling is to be spent in increasing the dock accommodation at Antwerp. The Belgian Minister of Public Works has decided to extend the quays 3,000 feet to the south. The Etoile Belge says a channel 200 feet wide and 24 feet deep is to be constructed. The work is to be carried out by contract, the specifications not only defining a minimum wage for the workmen, but requiring them to be insured and measures taken for their safety. The present works are only part of a scheme for a still greater extension of the port, surveys having been made further down the Scheldt.

DURING the past four or five springs and summers, the Carrington House site in Whitehall has bloomed with a constant succession of many flowers of field or hedgerow, self-sown at Nature's mysterious bidding to beautify the heaps of brick-bats and mortar which are all that remain of Lord Carrington's fine town house. More seasons will probably wax and wane before the site is dug for foundations, for departmental building schemes have a way of being long considered and carried out only after a succession of delays.

WHAT difference a span of 13 years makes in the fashion of an Artist's work, will be abundantly evidenced in a comparison between the two exhibitions of Lord Leighton and Mr. Watts. It is said that Mr. Watts is uncertain as to the date of his birth, but a portrait of himself, painted in 1834 is stated to represent him in his eighteenth year. This would make him Leighton's senior by 13 years, and his present age to be 80. But the dresses and the style of painting of his early work would appear to be removed by half a century from the first performances of Leighton. How much earlier than Leighton, Watts was in getting to work, is evidenced by his beautiful study of a heron, his first exhibited work, painted before he was of age; but if we take his "Lady Holland" and compare it with Leighton's "Cimabue," painted by the artists at the age of 27 and 26 respectively, we see how rapidly Leighton overtook him in draughtsmanship, which has always been Watt's weak point.

FEW appreciate how valuable a field of education are the historic buildings of London. The fact, however, is recognised by the Committee of the Female Orphan Asylum, at Beddington. The annual report just issued, contains a statement that, with a view to "enlarging the minds of the children, and imparting a more useful and general knowledge of common things," the system has been adopted of taking the elder girls once a quarter to some interesting institution in London. The plan is an excellent one, and will fully justify in every respect the small expenditure the organization of the trips will entail upon the charity. Other charity foundations and the public schools might with advantage follow the example.

QUEEN'S House, Cheyne Walk, a house with an interesting history, is now in the market. The name it now bears has been given to it from the supposed residence of Charles II.'s neglected Queen, Katherine of Braganza. Though this is very dubious, and only supported by tradition and the initials in the fine wrought-iron gate, the house will always be memorable as that to which Dante G. Rossetti, his brother William, George Meredith, and Algernon Swinburne came to live in 1862. Their partnership in the house was not of long duration, but "D. G. R.," as is well-known, retained it until his death, in 1882. It is now occupied by the Rev. Mr. Haweis, who gave it its present name, and added the figure of Mercury on the roof. The house is a good specimen of the Wren model, with a disfiguring bay added in later years. It stands on or near the site of the new Manor House, built for a royal nursery by Henry VIII., where Queen Elizabeth spent much of her girlhood, which was demolished after the death of Sir Hans Sloane, its last occupant.

MUCH of the "Altstadt" of Prague has been condemned as insanitary, and will, in the course of a few years, be destroyed and rebuilt. With it the old "Ghetto," one of the oldest in Europe, will vanish. In the old burial-ground, which was used by the Jewish community of the city as early as 941, tombstones, with characters engraven nearly one thousand years ago, may be traced. The old Jewish quarter and, indeed, the "Altstadt" as a whole, form the picturesque part of the city, and, when it is replaced with modern houses and broad streets, Prague will be no longer the Prague we have known. One of the chief resorts for public inspection was the Patrizierhaus, which is among the oldest where all is so very old. It must at one time have been the home of a distinguished family, judging from the paintings on the walls, as well as the average size of the rooms. The forepart of the house contains three stories, the back portion five, and the main hall rejoices in a handsome Gothic roof.

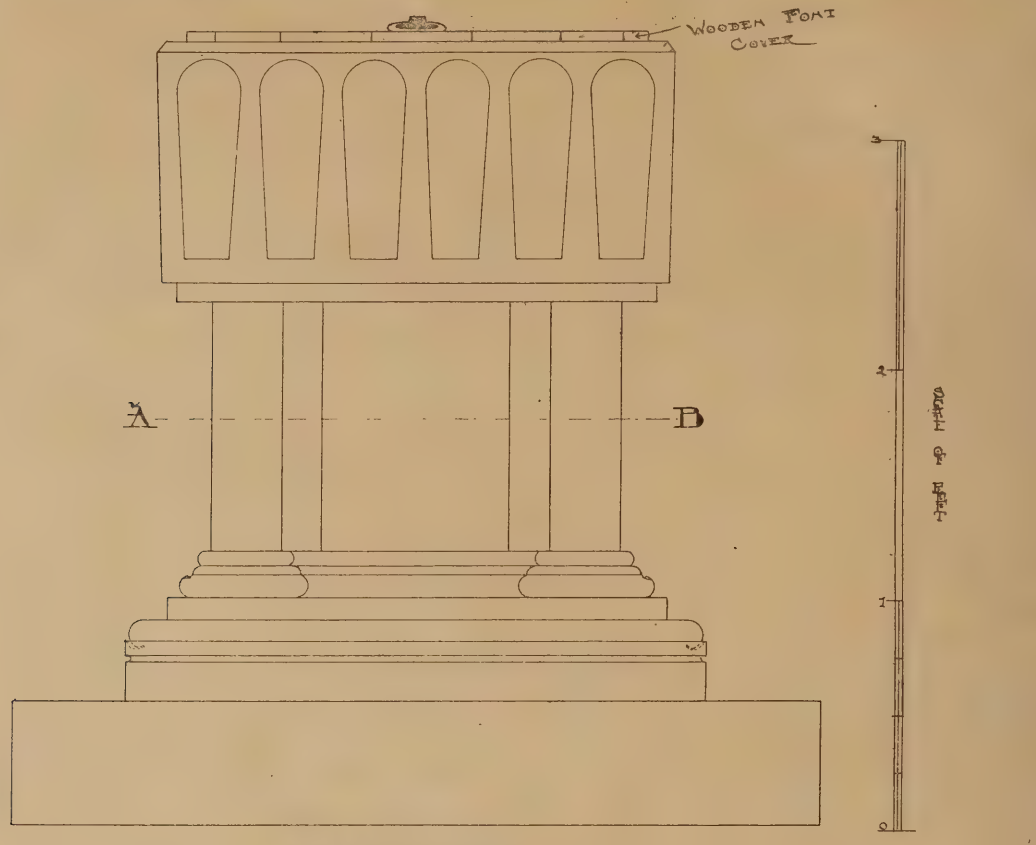
THE group of figures which it is proposed to place in the pediment of the new Academy at Dumfries has been modelled in stucco by Mr. Rhind, Edinburgh, from a design of Mr. Carruthers, the Architect of the building. It is intended that each of the figures in the group should represent one of the various Arts and Sciences in the person of a noted disciple belonging to the district. The central figure is that of Burns, and to his right are the figures of Paterson, the founder of the Bank of England, in the wig and coat of the period; Nasmyth, the painter; Sir Andrew Halliday, the eminent physician; and Clapperton, the African explorer, whose mother still resides in Annan. To the left are Lord Young, the author of the school board system; Thomas Carlyle, and Telford, the engineer. There is an alternative proposal that the pediment should be ornamented only with a scroll design, with a shield in the centre bearing the image of St. Michael. This would cost £100, while the statuary would cost £300.

AN instance of what brains and industry can accomplish is furnished by the career of Sir John Brown, who has just died at the age of 80. His start in life was humble. His father was a working slater, and had his son apprenticed to a file factory. From the making of files he became one of the leading captains of industry in Sheffield, the great steel firm of John Brown & Co. being known all over the world. He first came to the front by manufacturing railway buffers, but it was his armour plates for English warships which made his fame and fortune. He was thrice Mayor of Sheffield, and received his knighthood in 1867.

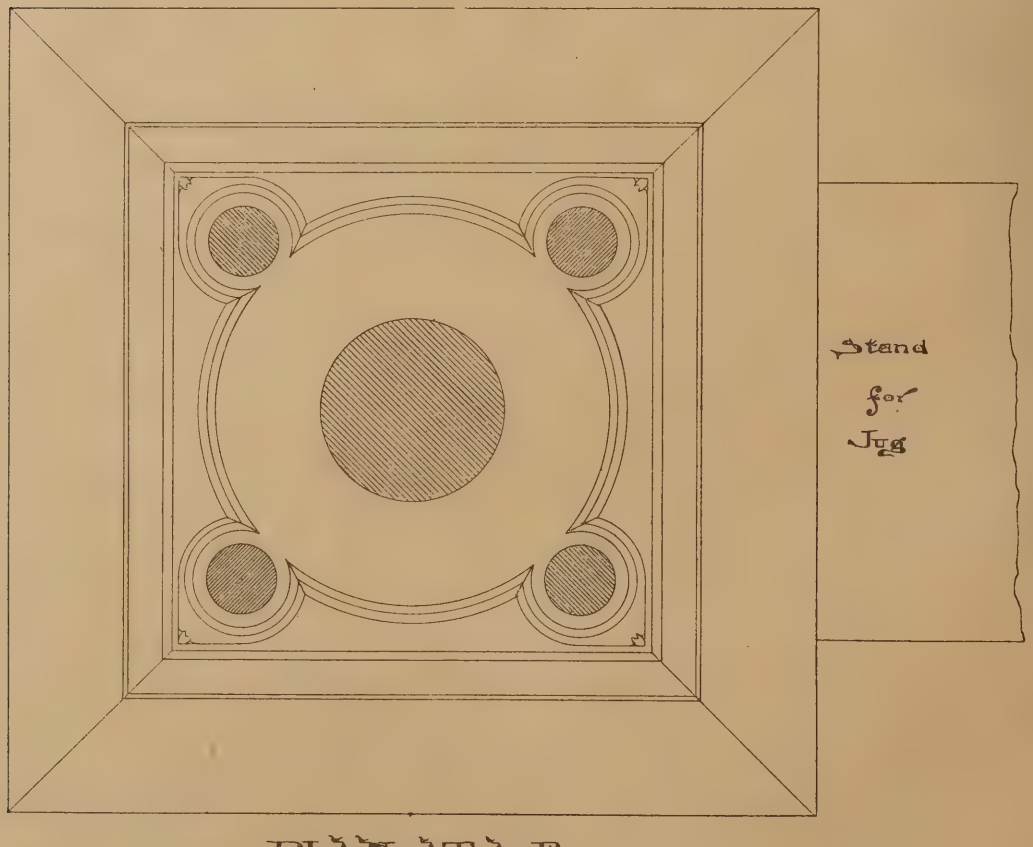
AT the present time the question of providing new schoolhouses is attracting attention in New York, says the Tribune. On both sides of the East River, the neglect of former city authorities to make adequate provision for the needs of rapidly growing populations is now seriously felt, and urgent steps are being taken to bring the schoolhouses abreast with the demands. In New York there are hopeful prospects of facilitating the work of building new schools, commonly a slow and tedious process. Several million dollars are available for new school buildings, and the Board of Education is preparing to make the best use of this large sum. It is estimated that about 10,000 more sittings are required at once. Moreover, the public school accommodations of the city are more inadequate at the close of 1896 than they were at the close of 1895. While it is estimated that 776,000 dollars are needed to provide the accommodations urgently and immediately required there, it would be a most short-sighted policy to fail to take into account the growth of the city and the growing needs that go hand in hand therewith. The Board of Education has wisely agreed to appeal to the Legislature, for the passage of a Bill authorising the issue of bonds to the amount of 2,000,000 dollars for the purchase of sites and the erection of school buildings in 1897 and 1898.

FONT IN BEDDINGTON CHURCH SURREY

MEASURED & DRAWN BY GEO ALF JOHNSON 1896



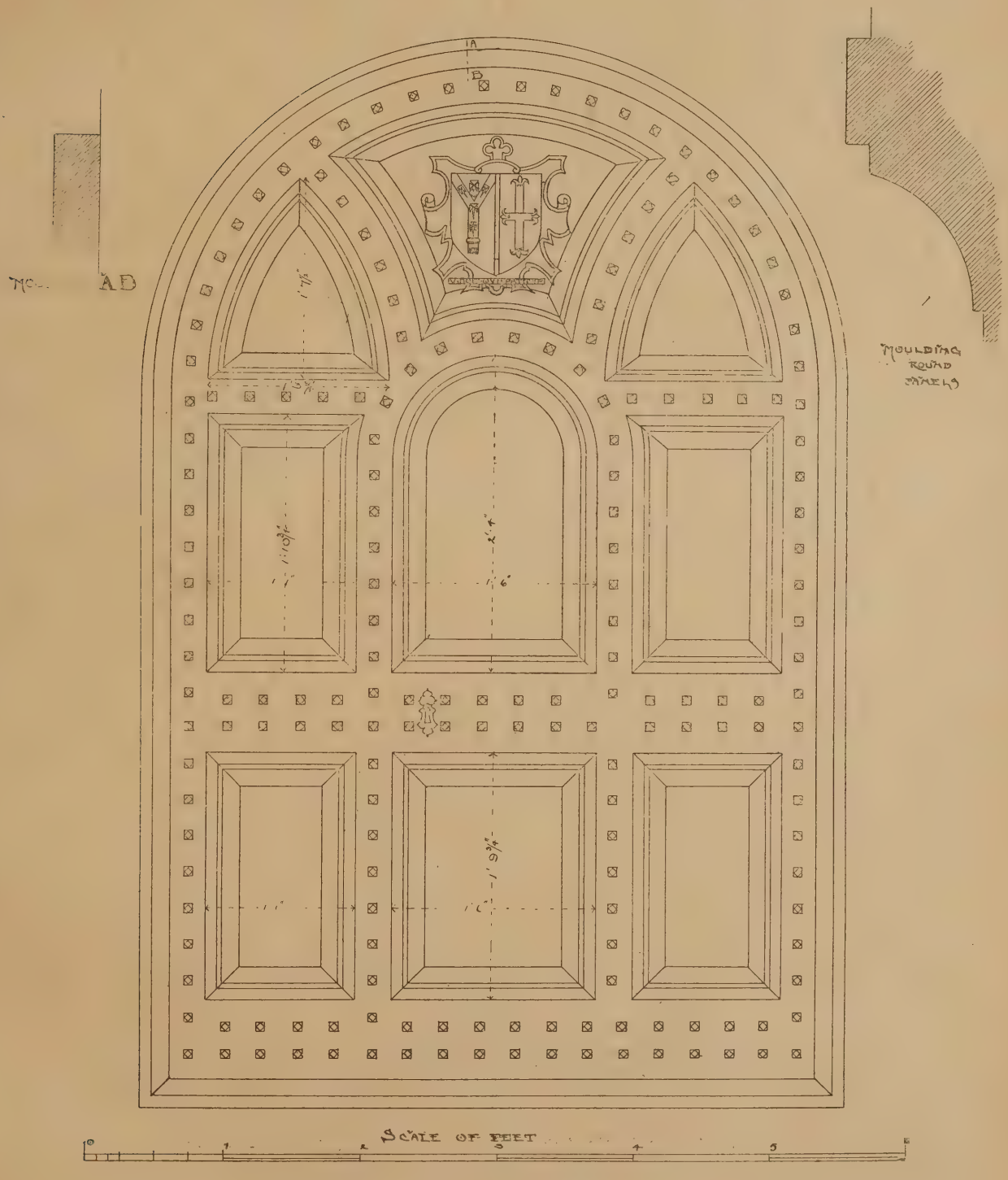
ELEVATION



PLAN AT A B

A DOOR IN ARCHBISHOP WHITGIFT'S HOSPITAL · CROYDON

MEASURED & DRAWN BY GEO ALF JOHNSON 1896



MOULDINGS ARE DRAWN FULL SIZE

CONSIDERABLE litigation is threatened as an outcome of the washing away of the Old Chain Pier at Brighton. The West Pier Company, whose structure was damaged to the tune of £4,000, has given notice of a serious claim against both the Chain Pier Company and the Brighton Corporation. The former is to be sued for the actual damage occasioned by the floating débris of the old pier, and the Town Council is to be held responsible for not seeing that the demolished structure was taken down immediately after it had been officially condemned. It is understood that the West Pier Company also seeks to obtain redress from the Corporation for alleged damage caused by the plant of the contractor of the new sea-wall, which was washed about during the fearful gale of Friday night, the 4th ult. The work of continuing the new sea-wall and esplanade under the West Pier has been stopped, owing, it is said, to the claim put in by the company that the foreshore belongs absolutely to them and that the Corporation has no power to carry out the proposed plans.

A BILL has been deposited for next session by the Tower Subway Company, asking for power to sell their undertaking in consequence of "the opening of the Tower Bridge having reduced their tolls to a sum insufficient to pay the expenses of lighting and management." From the preamble of this Bill it appears that the company have expended upon the construction of this subway £26,600, since which they have received £11,500 as compensation from the Corporation of London for loss of revenue resulting from the opening of the Tower Bridge. Upon a sale of the subway being effected, it is proposed to dissolve the company.

THE International Exhibition of Arts at Florence, which was opened recently by King Humbert, contains a notable quantity of English pictures, including works by Sir E. J. Poynter, Sir Edward Burne-Jones, and Messrs. Frank Dicksee, Alma Tadema, Seymour Lucas, Alfred Parsons, Briton Riviere, Swan, Corbett, G. Richmond, Alfred East, and A. Waterhouse. With such representatives it is not surprising to learn that contemporary British Art has made a great impression on the frequenters of the Exhibition.

IT is greatly to the credit of the manufacturing town of Paisley that it should be able, year after year, to organize an Art Exhibition, and to maintain an Art Institute in its midst, the membership of which numbers 595. As heretofore, the valuable private collections of paintings of the local magnates have been laid under liberal contribution. In themselves the loan paintings are an attraction greater than many of the leading Art exhibitions can offer. There is, for instance, on the walls an example of Velasquez, given on loan by Mr. Archibald Coats, of Woodside. This is the Countess Ruffo Bouneval de la Fard, and is delightfully pure in colour and vivid in execution. From the same collection there has been contributed the portrait of Miss Francis Harford, by Romney, the eminent early English portraitist; while Sir Thomas Glen-Coats, of Ferguslie, has given an example of the work of Sir Thomas Lawrence, P.R.A.

THE statue of St. Michael, the patron saint of Brussels, which adorns the spire of the Hôtel de Ville, has just made a second descent. It was first erected in 1455, and lost its head in a tremendous storm which swept over the city in 1608. Nine years later it was taken down for repairs, but since it was re-erected the necessary processes of renovation have been carried on with the statue in position. It has now been found necessary to take it down for the purpose of rebuilding, and this work having been completed, it is on view to the public for a few days before being replaced.

M. KAEMPFEN, Director of the National Art Galleries of France, in a speech to the students of the Ecole des Beaux Arts, protested against the extreme modernists, who would banish the antique altogether from the schools. "Be of all ages," said Mr. Kaempfen, "even of that which is to come, if you have imagination enough to invent it. Borrow from ours, to reproduce our greatness and misery, our beauty and ugliness—but do not impoverish Art by suppressing antiquity. To have learned to drape a tunic, a peplum, a toga, or a chlamys, does not incapacitate an Artist from copying accurately a frock-coat, a waist-coat, or a pair of pantaloons; perhaps, indeed, the task will be rendered easier by the accomplishment of a previous one of greater difficulty."

IN deference to the generally expressed desire, both private and public, an arrangement has been come to between the First Commissioner of Works and the memorial committee, whereby the statue of John Bright, in the Houses of Parliament, shall be removed from the Central Hall prior to the opening of the session, and deposited in a safe place, pending its transfer to some public institution.

THOUGH a site has been chosen for the bust of Sir Walter Scott, there will yet be a little delay before it is finally set up in the Abbey. This is due to several causes, one, though certainly not the most important, being that the money has not yet been fully subscribed. This has been so nearly done that Mr. Hutchinson's bust has already been chosen and acquired. It is a copy and, as nearly as possible, an exact reproduction of the familiar Chantrey marble. The original is at Abbotsford, and is the first of three busts taken by the Sculptor. Chantrey was so successful with it that there was a great desire to obtain copies of it. But the Artist, while preserving in each absolutely the original pose, had for the two succeeding portraits separate sittings. One of these was for Sir Robert Peel, and is still in possession of the family; the other was for the Duke of Wellington, and it is now at Apsley House. The inevitable variation gives a peculiar interest to the three portraits. The site chosen in Poet's Corner is just by the Duke of Argyll's monument. But this position—admirable from a literary point of view—will not, we hope, be finally adopted without some consideration for the Abbey itself. When once the marble is placed in its chosen place it cannot be removed without tedious and costly formalities.

THE recent heavy landslip at Bournemouth, on the east cliff, has revived the question of the undercliff drive that has been more or less before the town for 13 years. The Town Council, having received a letter from the ground landlord, Sir George Meyrick, favourable to giving the town a lease of appropriation of the cliffs, has decided to get a scheme for the preservation of the cliffs and the construction of an undercliff drive drawn up by the borough surveyor, and considered at the next meeting. Sir George Meyrick has asked the Corporation what would be done with the cliffs if handed over to the town.

NOT long ago students working at the National Gallery petitioned the trustees for certain concessions to which they deemed themselves entitled. One was that they should be given a special room for the public exhibition of their copies, and another that each of their pictures should be submitted to a committee of the trustees, to determine whether it was worthy of a Government stamp—in other words, they asked that the approval of the institution should be impressed upon their canvasses. Needless to say, the latter request was not entertained. In regard to the first, however, they were practically met half way, for the authorities, while declining to permit any special exhibition of the students' work in the manner indicated, relaxed the rule compelling copies to be removed within a fortnight of completion, and, in future, will allow them to be stored on the premises. A room is now in course of preparation to carry out that object, but the impression that the efforts of the students will be open to the inspection of the public is an erroneous one, though ample opportunities will be afforded prospective purchasers of viewing any particular studies for which they may have a fancy.

THE 226th anniversary of the founding of the Hotel des Invalides by the Grand Monarque, suggested to a French paper a brief sketch of its origin and history. Before the reign of Henry IV., soldiers incapacitated by wounds, sickness, or age were compelled to resort to either brigandage or begging for their existence. Those who were very lucky might be taken as lay brothers into a monastery. Henry IV. established the Hospital of the Oursine, where old soldiers admitted by his order were to be clothed, fed, and cared for. In 1634, Louis XIII., finding this building too small, removed it to Bicetre, which became known afterwards as the barrack of St. Louis. In 1670, Louis IV. decided to found the Invalides, which was first opened in 1674, but the dome was not finished for another thirty years. Of late years the lot of the pensioners has been much improved, and a special class has been formed of those old soldiers who could not receive proper care and attention from their own families. The officers are divided into two classes of lay brothers, the higher of whom enjoy the privilege of having their meals in their own apartments. At present there are 500 pensioners in the Invalides.

THE design for the memorial to be placed over the tomb of the late Sir Augustus Harris is now on view at The Studios, Vincent Square, Westminster, the house of Mr. Joseph Whitehead, who has been commissioned by Lady Harris to execute the monument. The memorial, which will be finished in about six months, consists of a white marble pillar surmounted by a bust of the late Sir Augustus. On one side stands a female figure, emblematic of Fame, crowning the bust with a wreath, while on the other side is a trophy emblematic of Music and the Drama.

AN interesting discovery has been made in Well Street, Bradford, the old well from which the name of the street is derived being found in the basement of a block of buildings bounded by Swaine Street, Ship Alley, and Brown Street, in premises occupied by Mr. R. Thompson, paper merchant, situated at the corner of Swaine Street. But for a large quantity of sediment the well remains much the same as when its waters supplied nearly the whole of that portion of Bradford. The depth is supposed to be about 18 feet, and the diameter about 5 feet. It is walled in regular courses, but with undressed stone. The discovery of this relic of Old Bradford is especially interesting, as the well probably dates back several hundred years. It may not be generally known that the Bradford Grammar School was formerly situated on the site of the present General Post Office, the favourite playground of the boys being the open space now occupied by Foster's Buildings, extending from Hall Ings to Swaine Street, and the "Isle of Man," a triangular plot of ground adjoining, but nearer to Kirkgate. Well Street, although much narrower in width, occupied its present position, and got its name from the existence of the well, known as the "School-house Well," now so singularly brought to light. The well supplied nearly all the lower portion of the town, and at one time received its supply from a stream which emptied into the beck at Broadstones. Along this stream willows grew, and at that time the aspect was quite suburban. The well was originally reached by descending three or four steps.

AN interesting example of a last-century carving is to be found at No. 4, College-Hill—a street famous for possessing the Church of St. Michael Paternoster Royal, and the well-known magnificently carved lintels of Nos. 21 and 22, which are of seventeenth-century date. With them the at-present-considered work can in no way compare. It is stiff where they are free, and rigid where they are flowing, but in its way, and as a survivor of a race of doorways fast becoming extinct in the City, it will repay more than a passing glance. Mr. Edward Crosby writes as follows concerning the house generally: "It is," he says, "of last century's date, but new windows have at some time been put in. The attic story, however, together with the old coping and the rain-water catch, shows it to have been an old City mansion-house. The portico is of wood, painted over, of course, and shows an unbroken pediment supported by carved brackets. In the tympanum are carvings of a head crowned with a wreath, two cherubs' heads and wings, the space being filled up with fruit, flowers, and scroll work."

SIR HORATIO LLOYD, the Recorder of Chester, recently suggested that a statue of the Duke of Westminster should be erected in Chester, as a mark of public appreciation of his Grace's beneficence to the city and county. His grace, however, desires that the movement should not proceed.

Professional Items.

AUCHTERARDER.—The St. Kessog's Church, Auchterarder, the memorial stone of which has just been laid, is situated in a park of 2½ acres on the north side of the High Street of Auchterarder. The church consists of a nave 48 feet by 24 feet, and a chancel 26 feet by 24 feet, separated by a handsome stone chancel arch, with richly carved capitals. The porch is at the south-west corner of the nave, and in a niche above the doorway is a statue of St. Kessog. The vestries and organ chamber are on the north side of the chancel. The chancel is the same width as the nave, and the roof is externally the same height in both, the ridging of red tiles being continuous from one end of the building to the other, except over the chancel arch, where it is intersected by the flèche. The flèche is of wood, covered, like the rest of the building, with green slates from Aberfoyle. It rises to a height of 70 feet. Externally and internally the walls are of warm red local stone, the dressing being in white stone from Auchinlea Quarries, near Motherwell. The roofs are of dressed timber, open to the ridge, 35 feet above the floor of the nave. The nave is divided into four bays, and is lighted by groups of double lancets along the sides, and by triple traceried lancets in the west gable. The nave will accommodate nearly 200 persons. The design is early decorated Gothic, and the Architects are Messrs. Ross and Macbeth, of Inverness. The contractors are:—Mason, Peter Anderson, Auchterarder; carpenter, James Martin, Auchterarder; slater, R. Gibson, Auchterarder; plumber, James Macleish, Perth; painter and glazier, C. Alexander, Perth.

BAKEWELL.—A vestry meeting was held at the Parish Church, Bakewell, on Thursday, Dec. 24th, for the purpose of adopting plans for a new vestry. Plans had been prepared by Mr. Naylor, the Diocesan Architect, and the committee recommend that a vestry be built adjoining the north transept of the Church, and a faculty be applied for to commence the work at once was unanimously adopted.

BEARSDEN.—During the past year great activity has been manifested in the building trade, and an unusually large number of villas and cottages have been erected. At Exshine Park and other parts of Bearsden upwards of 20 villas and cottages have been built. The large field recently occupied by the football club has been fenced, and two villas are already in course of construction upon it, and on a field at Feguston Farm several cottages have been commenced. Notwithstanding these extensive additions the demand for houses continues.

BRIGHTON.—A new Chapel has been built at Windlesham House School in memory of the late Mr. C. Scott Malden. The Chapel was begun by Mr. Scott Malden, the walls being half up at the time of his death, and it has now been finished by his friends as a memorial to him. The Chapel accommodates over 150 persons, and an interesting feature about it is that a considerable part of it has been built from the material of the old Carfax Church at Oxford. The old oak of the Carfax has been used to make the roof, the organ loft, and other parts, the pulpit also being from this celebrated Oxford Church, while the beautiful carved oak altar and reredos are of fifteenth-century work—so that, as regards its interior at least, the Windlesham House Chapel may be said, in a sense, to be at once the newest of the oldest of the places of worship in Brighton.

BYKER.—At St. Michael's Parish Church, the stained-glass window which has been erected on the north side of the Church in memory of the Rev. H. T. Ormerod, B.A., has just been unveiled. The work has been executed by Messrs. Wailes and Strang. The window consists of two lights and a geometric tracery above, all of which have been filled with rich glass. Two figures, those of St. Matthew and St. Luke, are represented in Eastern robes and bearing pens and books in their right and left hands respectively. The former is depicted in rich ruby purple, yellow, and deep blue robes, while the latter is in rich ruby, green, and blue purple.

CHESTER-LE-STREET.—The limited, and altogether insufficient, amount of house accommodation at Chester-le-Street, which has given rise to much complaint and great inconvenience for some years past, is in the immediate future to receive a welcome relief. Mr. C. Groves, builder, has secured a small estate in the West Lane, not far from the Front Street, upon which he is already building. When built upon the estate will contain 90 houses, in a most convenient and healthy situation. Messrs. Thos. Thompson and Son, builders, have also secured a freehold building estate, upon land of the lord of the manor, Mr. Chas. H. Jolliffe. This they intended laying out for detached cottages and houses with allotments ranging from a quarter to an acre in extent.

CWM PARK.—St. George's Church, which has just been built at the expense of Mrs. Llewelyn, of Baglan Hall, is situated in the centre of the village, and accommodates more than 400 worshippers. It comprises a chancel, nave, south aisle, porch, and massive tower over 60 ft. in height. The style adopted by the Architect, Mr. George E. Halliday, is fifteenth-century English Gothic. The walls are composed of native stone, while hard Doulting stone is used for the window tracery and other dressings; the hammer-beam roof is of pitch pine, left free from either stain or varnish. The internal face of the walls is of pointed rubble work. The pulpit and font are of green Bridgend stone. A noticeable feature in the Church is the reredos, which is of polished pink alabaster, richly carved. The contractors were Messrs. Knox and Wells. The Church is lighted by electricity.

DEWSBURY.—At the last meeting of the hospital board, it was decided to award the first premium for plans for a new infectious hospital, which it is suggested should be erected in the Soothill Nether district, to Alderman Fox, Architect, Dewsbury, and the second premium to Mr. John Lane Fox, Architect, Dewsbury. Alderman Fox's estimated cost was £32,000, and that of Mr. J. L. Fox was £35,395.

DUBLIN.—There is about to be erected, in Coote Hill Catholic Church, a side altar in carved stone and different coloured marbles. The altar, which is to be dedicated to the Sacred Heart, is in the Gothic style in keeping with the Church. The five panels are of white Sicilian marble. The altar table is handsomely moulded. On it rests a tabernacle of Caen stone, with marble pillars of rich colours, bases, and floral caps. The door is richly chased in brass, with coloured inlays. The tabernacle will be surmounted with the figure of the Sacred Heart in white marble, with a canopy of Caen stone, supported by pillars of Irish green marble. The design was the work of Mr. C. T. Taylor, Architect, and the contract was carried out by Messrs. Taylor and Sons, Sculptors, Dublin.

DUMBARTON.—The new buildings of the Young Men's Christian Association, situated in Risk Street, have recently been opened. The new buildings embrace a gymnasium, a reading room, and library; committee, secretary's, and dressing rooms; hall, capable of accommodating 250 persons, lavatories, baths, parlour, and keeper's house. The cost is estimated at £3,500.

DUNDEE.—Mr. G. C. Buchanan, Harbour Engineer, has submitted to the Works Committee of the Dundee Harbour Trust a report as to the proper equipment of the eastern wharves with new hydraulic machinery. It was expedient, the report stated, at an early date to make arrangements for the proper equipment of these wharves with hydraulic machinery. The engineer had carefully considered the schemes and approximate estimates forwarded by Sir W. Armstrong & Co. and Messrs. Tannett, Walker, & Co., and it appeared to him that Sir W. Armstrong & Co.'s proposal was the more suitable and at the same time the more economical of the two. The tender amounted to £3,365, which Mr. Buchanan considered moderate.

EDINBURGH.—The new premises of the Edinburgh Working Men's Club and Institute, in Infirmary Street, Edinburgh, were formally opened, on 22nd ult., by Mr. Wm. M'Ewan, M.P. The building, as altered, presents a handsome façade in the classic style. For the better lighting of the premises, the windows all round have been altered and enlarged, also transforming to a large extent the side-view of the building. The ground in front has been utilized for a portico entrance, and with the exception of that part and the committee-rooms, and heating chamber in the rear, which are of one story, the building is a three-story one. On the street floor, in the portico, there is the superintendent's room entering off the vestibule, in which registering turnstiles are to be placed. The reading-room and library are also on this flat, both having accesses from the entrance hall. Two large rooms for the use of the secretary and the committee adjoin the reading-room. To the upper flats there are two staircases, one for members, and the other for visitors. That on the right hand leads to the visitors' billiard-room, in which there are to be four billiard tables and one bagatelle table. Also on this floor, but approached by the other stair, are members' rooms for playing games, the larger of the two being for draughts and chess, and the other for dominoes. The whole of the top flat forms the members' billiard-hall, a special feature of which is the lighting, which is both by window and from the roof.

An important feature of the improvements now being carried on in St. George's Church, Edinburgh, is the filling with stained glass of the large window of three divisions looking to the west. By somewhat enlarging the height of the central opening, sufficient space has been obtained for the representation of the Ascension. The window was executed under the direction of the Architect, Mr. Leadbetter, at the studios of A. Ballantine and Gardner, George Street, Edinburgh.

FALKIRK.—The new Fever Hospital which has been erected on the Edinburgh and Glasgow Road, a short distance to the west of Camelon, by the Eastern District Committee of the Stirling County Council, has just been opened. The hospital consists of four large blocks—namely, one administrative, one for scarlet fever, another for enteric fever, and a laundry. There is accommodation for 22 patients. The two fever blocks are 100 feet long by 30 feet wide. The hospital, the cost of which is £7,000, covers three acres of ground, and has a terraced front to the roadway, which gives the buildings a handsome appearance.

GLASGOW.—By way of marking the completion of a somewhat extensive rearrangement and improvement of the Glasgow Liberal Club, an informal ceremony took place a few days ago. The work has been done at a cost of nearly £1,200. The dining-room, which is an exceedingly spacious apartment, effectively broken by Corinthian pillars, is now decorated in a scheme of green and gold with terra-cotta wall papering, while the smoking-room now takes the place of the large reading-room, while the reading-room has been placed at the head of the staircase in one of the smaller rooms, and the billiard-room has been enlarged to accommodate three tables. The electric light has also been fitted up throughout the building. The improvements have been carried out under the superintendence of Mr. R. D. Sandilands, Architect.

HEREFORD.—The infant school, built at the rear of St. James's Church, Hereford, has just been opened by the Bishop of Hereford. The buildings are well arranged and stand back from the road with a south aspect. A large playground is provided which extends on three sides of the building, while the offices are fixed in the rear. The exterior of the schools shows timbered gables filled with large mullioned windows all in harmony with the slated roofs and well-built brick walls, the line of the main roof being broken by a turret. The interior consists of a lobby, a cloak-room, a class-room, and a large school-room. The school and class rooms are finished with roof trusses and moulded wall plates, and the entire view of the rooms is free from any unsightly beams. The walls internally are lined to a height of four feet with glazed bricks.

LONDON, W.—The St. Marylebone Infirmary, situated in Rockham Street, Ladbroke Grove, W., was recently opened for inspection. The building has from time to time been extended until it now covers over seven acres. The Architect was Mr. H. Saxon Snell. The building now consists of eight blocks, each connected with fire-bridges, so that in case of fire speedy escape would be possible.

The cost, including the nurses' home lately erected, was £130,000, or about £175 per bed.

OLDHAM.—The Local Government Board has acceded to the application of the Oldham Town Council for permission to raise loans of £10,000 for electric lighting purposes and £1,050 for the construction of a public convenience at Rhodes Bank. In the early part of October, an enquiry was held into the subject-matter of these two applications, along with applications for power to borrow £55,000 for sewerage and sewage disposal works, and £9,000 for public baths at Robin Hill. The consent of the Local Government Board to the two last-named loans has not yet been received.

RHYL.—The Rhyl Urban District Council has completed the negotiations for purchasing the site of the old Royal Alexandra Hospital at the end of the east promenade. The sum of £3,500 has been paid for the site, and the hospital committee has agreed to pull down and remove the building within four months, so that the site will be clear by the opening of the season. It is proposed to lay out the site when cleared as a recreation ground. The Rhyl Urban District Council has also agreed to extend the west promenade towards the Foryd, with a sea wall in front. This is to be done partly at the expense of the ratepayers and partly by the private owners of adjacent land, the object being to open up a large tract of building land and to secure a better approach to the Marine Lake. Tenders for the work have been received, that of Mr. Jacob Biggs, contractor, Birmingham, being the lowest.

STIRCHLEY.—Mr. W. Hale's plans for the proposed new Church at Stirchley and the mission room for The Cotteridge, have been accepted, and Mr. Hale requested to invite tenders from most of the well-known builders. Subscriptions to the amount of £2,500 have already been received towards the £7,000 required.

STONEHAVEN.—The Church of the Immaculate Conception, Stonehaven, which has for some time past been in the hands of the painters, was re-opened last week. The four windows of the sanctuary, which formerly were of plain glass, have been replaced by handsome stained glass windows representing St. Joseph, the Immaculate Conception, the Sacred Heart, and St. John. The interior of the Church has been treated with a handsome modelled wall covering, with a design of wheat in pale blue and gold. Mr. Copland, of Aberdeen, has had charge of the work.

TIPTON.—At a recent meeting of the Tipton District Council, the General Purpose Committee reported that they had considered the plans for the proposed extension of the Public Offices, the erection of a fire station, reading-room, committee-rooms, technical instruction and lecture hall, at a cost of £4,000. The Fire Appliances Committee had previously reported that a drill hall was contemplated, and they had recommended that Captain Roberts should be communicated with on the subject of the rent. The report was adopted by the Council.

THE completion is announced of the Emden-Vigo cable, one for diverting the German traffic to the Iberian peninsula from the French wires. The cable is over 1,100 miles, and it connects the German system at Emden with the Spanish system at Vigo, and with the submarine cables of the Eastern Telegraph Company.

ATTENTION is being directed to the neglected condition of the Market Weighton canal, which discharges into the Humber midway between Hull and Goole. The waterway has, in its lower reaches, become silted up with sand from the Humber, and with deposits of sand from the feeders in the upper reaches. There appears to be some difficulty as to the question of liability, however. The North-Eastern Railway Company some years ago bought out the subscribers, and now take the tolls for the navigation. The drainage trustees have the power to clean out the canal and repair the locks, but they have no funds, as the dues and tolls are collected by the North-Eastern Railway Company, who repudiate any liability.

BELFAST CORPORATION WORKS.

THE annual return prepared by the City Surveyor's department gives some interesting particulars concerning the principal works erected during the past year. The return shows that in addition to the extensive works of maintenance and repair carried out during the twelve months, the following have been executed or are in progress:—Permanent paving has been laid in Corporation Square, Waring Street, Clifton Street, Howard Street, Long Lane, and Divis Street. Flagging has been laid down in sixty-seven streets. The number of buildings for which plans were approved in the year 1896 is:—County Antrim side, 2,879; County Down side, 849; total 3,728. The number of streets for which plans were approved during the year is:—County Antrim side, 67; County Down side, 18; total, 85. The number of streets or portions thereof completed and adopted is 75, of which 30 are macadamised and 45 paved and flagged. The total length of streets thus adopted is about 5⅛ miles. Block and sett crossings and street ends have been laid in Botanic Avenue, Ormeau Road, Pilot Street, Ravenhill Road, Woodstock Road; Ravenhill Road, between the park gates and Ravenhill Avenue, has been lowered and widened, and the gradient improved; railings have also been erected along the park frontage, in lieu of the old stone wall, where the road has been altered. The southern approach of the Victoria Park Bridge has been raised and the gradient improved, the adjoining owners having given the necessary facilities. An arterial sewer in connection with the high-level system has been extended along the valley of the river Blackstaff, as far as Surrey Street, and is now being completed to the city boundary.

A NEW SEWER

is also being constructed in Skegoniel Avenue in connection with the low-level system. The old sewers in Cullingtree Place, Cullingtree Lane, Railway Street, M'Gahen Street, and a portion of Ardilea Street, have been reconstructed so as to discharge into the main drainage system. Upright ventilating shafts have been substituted for surface ventilators in the following places:—Castle Lane, Boyle Street, Oban Street, Blythe Street, Osman Street, Townsend Street, Newington Avenue, and lane off Little Donegall Street. The various watering troughs and drinking fountains have been painted, repaired, and some have been improved as regards water supply. The pumping stations have been painted throughout. A new weigh-house has been erected at Rosetta. The Linen Hall site has been cleared of old buildings and the site sown in grass. A new fire escape station has been erected at Willowfield Street, and the escape station removed from Templemore Avenue to Middlepath Street. Several improvements have been made in the courts, cells, and offices connected therewith. At the abattoir, a cooling house fitted with modern appliances, has been erected. Five of the separate houses have been converted into one large apartment, lined with glazed bricks, and supplied with the most approved fittings. The entire drainage has been reconstructed and connected to the main drainage system. The new fish market has been completed and opened. The clock removed from Linen Hall has been erected over the entrance opposite May Street. The interior of Ormeau Avenue Baths has been improved and painted. A boring, 408 feet deep, has been made, which yields an ample supply of water. Peter's Hill Baths have been pointed, and other minor improvements carried out. Falls Road Baths have been supplied with fittings and furniture, and the basement and passages laid with tar pavement. The hall, staircases, and corridors of the Town Hall have been painted.

NEW OFFICES

have been erected and fittings made for surveyor's department. A considerable amount of furniture and fittings have been made and placed in the Town Hall, library, gas offices, public baths, electric light station, and new mortuary. At Ormeau Park a new ornamental entrance has been erected, also a new pavilion at the bowling green, and all railings painted. The improvements at Botanic Gardens Park have been completed, and the lodge gates and seats repaired and painted, and new seats fixed round some trees. In Woodvale Park an ornamental shelter has been erected and the lodge and seats have been painted. In Alexandra Park the seats and railings have been painted. In Falls Park the lodge has been pointed. In Dunville Park the superintendent's house has been painted. In Victoria Park a skating course has been partially made. The lamps and railings of Albert Memorial and Cooke Statue have been repaired and painted. The Cemetery Church has been repaired, pointed, and painted, and the superintendent's house has been painted.

"ART AND THE HOUSE."

IN her book bearing this title, Mrs. Marriott Watson laments that many people never think about such Art at all, and persons not insensible to the beauties of nature are quite indifferent to Art at home. Up to a certain date our ancestors decorated naturally, because they had time and unconscious taste, and a habit of carving on models gradually evolved out of mediæval Art. The rich, Kings, and the builders of the great country houses, procured Italian Artists and Architects. The poor had plenty of oak, time, and a natural turn for carving. Nobles made the Grand Tour and brought home antiques and pictures. Artists like Vandyke and Petitot were encouraged here. The East sent carpets and porcelain, lacquer and jade. Art went on evolving through periods of taste, down to the Adamses who decorated so many houses, large or small, at the end of last century, till we reached the heavy late Georgian mahogany, and then reposed among early Victorian gilt mirrors, and machine-made walnut wood, and green carpets covered with lilies and roses, and walls in white and gold. Art societies issued engravings, chromo-lithographs and curious copies of Greek vases called Etruscan. Then came William Morris, whose wall-papers were deemed necessary to Artistic salvation, aided by modern Venetian glass. There had been a yet earlier age of heavy modern Oxford ecclesiastical oak for chairs and tables. This was followed by a craze for "Chippendale," that is, for any mahogany furniture of the end of the last century. Its discomforts were tempered by fat, soft, shapeless sofas and armchairs, extremely comfortable, and not to be abandoned by persons of common sense. Blue china raged like a fever and, for some reason, was reckoned an immoral passion, in spite of the example of Charles Lamb, a very worthy man. Then appeared two malign influences—cheap, sham Japanese ware, black and gold, fans, and the "hand-painted" sprawling in festoons of roses over doors and tables. Every article was made to imitate something else, and that something else was incongruous. Very bad etchings were hung in black frames on Morrisian walls. Many houses now contain a separate dislocated strata of all these periods. Houses of the middle classes are furnished either by a general order to an upholsterer, which secures uniformity at least, or by "picking up" any old things which strike the fancy and are within the compass of the pocket. The result is not uniform or Artistic, but it may be picturesque, and the articles have their associations. This table came from the Quais at Paris, that chair from a cottage in Wiltshire, this writing desk has served a great novelist, the bookcase came from Christie's, and other shabby old chairs from undergraduate rooms. Those who have money, conscience, and opportunity, may consult Mrs. Marriott Watson. At least she may teach them to avoid hand-painted looking-glasses, "bedizened with distorted simulacra of iris and Mary lily," unless they like these things, or their decorators. Messrs. Bell & Sons are the publishers of this interesting book.

A NEW Conservative club has just been opened in Caldmore Ward, Walsall.

WE understand that the Safety Tread Syndicate, Limited, has received the order for the supply of Mason's Patent Treads to the "Tower" at New Brighton.

AN electric pneumatic system of signalling is now being adopted in this country after exhaustive trials in America extending over several years, and it is claimed that it renders all signal cabins unnecessary except at important junctions and busy yards.

AN HISTORIC STATUE.

ON the west side of Paris is a dusky old Church, dear to archæologists. For St. Germain-des-Pres holds a real treasure—a statue of the Madonna with centuries of history and pious association wreathed round it. Even the casual visitor, strolling through that ancient pile and knowing nothing of its wonderful story, must be struck by the sweet old image. No age but the Middle Age could have wrought so devotional a statue, and to the thirteenth century we must go for the origin of this one. At that time the Abbey of St. Denis, near Paris, being in need of a statue to crown the altar of its Lady-Chapel, the Princess Blanche de France, daughter of St. Louis, was resolved to supply the want. So she sought out a skilful artist—whose name, alas! is not as immortal as his work—to chisel in stone a statue of Our Lady and the Divine Child. She commanded that the features of Queen Blanche should stand for the semblance of Our Lady, and that the Divine Child should wear the features of the son of Blanche, St. Louis, whose picture as an infant was happily preserved. Thus, while rearing a shrine, she perpetuated the memory of those whose names will ever be a benediction upon France. During the five centuries that followed the statue was in great veneration, and amid all the vicissitudes of war it alone escaped hurt. But when the fury of the French Revolution burst forth, it was

WRENCHED FROM ITS PEDESTAL,

and carried as so much stone to the Musée Francais. There it remained for ten years, forgotten amid the spoil of many Churches. In 1803, the altars of St. Germain-des-Pres were again prepared for the worship of God; but the sacred vestments had been stolen, and the whole Church was deplorably naked of ornament. However, the Abbe Levi, who had once been preacher to the Royal court and Vicar-General of Aix, knew the treasures of the Church had gone, and demanded leave to choose from the ruins in the Musée Francais a suitable statue of Our Lady. His eye was at once caught by the beauty of the statue stolen from the Abbey of St. Denis; and though he knew nothing of its history, he lost no time in choosing it. Once restored to honour in a Parisian Church, the story of the statue could not long be hidden, and long accounts of the vicissitudes it had undergone were published in the French reviews. The canons of St. Denis sent a deputation to reclaim it; but no eloquence would be equal to such an occasion. The parishioners of St. Germain-des-Pres were already so much attached to the beautiful Madonna that neither justice nor compassion could move them to part with it. But they compromised by allowing the canons to make a plaster cast of the Madonna of St. Blanche; and this may be seen, where the original stood so long, in the Lady-Chapel of the Abbey St. Denis.

THE Finance Committee of Aberdeen Town Council has resolved to recommend that Mar Castle, Gallowgate, an old building of historical interest which projects into the Gallowgate thoroughfare, should be removed.

AT the late sale, at Brighton, of Irish industries, the Artistic wood-carvings produced by the Killarney School were especially admired. A carved bedstead has been ordered from the school by the Duke of Portland for Welbeck Abbey.

THE question of the Oldham Corporation laying gas mains from Street, in Crompton, to Grains Bar, a length of over a mile of high road, has been under discussion again. The Gasworks Committee has decided that the work shall be done provided the Crompton District Council guarantees the Corporation a return of 7½ per cent. on the outlay. The cost of laying the main, which is chiefly needed for the lighting of the road, will be over £300.

AN interesting archæological discovery has recently been made at Musselburgh. Workmen engaged in making excavations at Belfield House, which is close to the railway station, have unearthed several stone coffins, which, up to the present time, number six. These are of different sizes, ranging from about 5 ft. in length by 2½ ft. in breadth, to 14 ins. in length and 7 ins. in breadth. All of the coffins are in a good state of preservation, and betray tokens of crude and primitive workmanship.

SITE FOR THE NEWCASTLE INFIRMARY.

MR. WATERHOUSE'S REPORT.

IN connection with the proposed erection of a new Infirmary for Newcastle, the question of site has been advanced another stage by the receipt of the report of Mr. Waterhouse, the expert who was called in to advise the house committee on this matter. Mr. Waterhouse favours the erection of a new hospital on the present site, and a special meeting of the committee has been held to consider his report. It may be remembered that the members of the medical staff of the Infirmary first proposed a site on the Leazes, but though the Freemen assented, the Corporation objected, and the scheme had therefore to be abandoned. Dr. Gibb then recommended the construction of a new and up to-date hospital on the site of the present Infirmary, and this proposal was endorsed by the medical staff. It was by them recommended to the house committee, but that body, before coming to any decision on the subject, decided to seek the opinion of an expert, and the matter was accordingly referred to Mr. Waterhouse, who, in his report, reviews the advantages and disadvantages of the present site, and concludes that, on the whole, having regard to its open position, which facilitates the free passage of air, the site is the best that could be chosen under the existing circumstances. He considers it will afford ample space for the erection of a first-class modern hospital of 400 beds, with the necessary administrative buildings, and accommodation for 80 nurses. Mr. Waterhouse is further of opinion that the work of constructing the proposed new hospital may be carried on without in any way interfering with the work of the Infirmary during the period which will be required for the construction of the building. In remains now to be seen what view the house committee may take of the matter, and what proposals they may deem it expedient to put before the Governors. We believe there are some difficulties associated with the site in question which are beyond the scope of an expert's advice.

A YEAR'S BUILDING IN LEEDS.

THE building trade at Leeds has been very active during the year. Plans for about 540 villas, houses, and cottages have received the approval of the Council. Plans have also been approved for the construction of 24 new streets and back roads in Haxby Road and Fulford Road districts, showing sites for 300 or 400 houses; also for six new hotels or public-houses, but in two cases licences have not been granted. Several large structural alterations to business premises necessitating plans have been approved, and there have been many instances of the conversion of houses into shops or the modernising existing windows. The expansion of the city during the year has been in the following districts:—Leeman Road, Burton Lane, Clifton, Wigginton Road, Scarcroft Hill, and Acomb Road. Further extensions have been and are in course of being made at the Haxby Road Cocoa Works, Messrs. B. Johnson and Co., Micklegate, Messrs. Wales and Son, Ogleforth, Messrs. Richardson Brothers, Foss Islands.

THE Mahometans are proposing to build a mosque in New York. It is also intended to have a college in connection with the mosque.

PROMISES of support to the new Newport hospital amount to something like £8,000, and this, in addition to the gift of Dr. A. Garrod Thomas, makes altogether about £13,000.

THE Committee of the Aberdeen Town Council on Workmen's Dwellings has agreed to build six houses on the site in the vicinity of the Hardgate, at a cost of £3,000.

THE St. John's Hall, Whorlton, built at a cost of something like £300 in connection with St. John's Church, Whorlton, in the parish of Newburn, has just been opened.

IN the Cathedral of Genoa is preserved, and has been for 600 years, a vase of immense value. It is cut from a single emerald. When exhibited it is suspended around the neck of a priest by a cord, and no one is allowed to touch it but him.

Trade and Craft.

PORT DE MER OF BRUSSELS.

Belgium has not a Manchester with its ship canal, but the Port de Mer of Brussels is a scheme having many characteristics in common with the great Lancashire water-way, though, unlike the canal, for ever it would appear destined not to be accomplished. Unfortunately for the projected port, the site chosen for the maritime installations is also the most suitable for what is more urgently needed for Brussels, a new railway goods station. It is easy to be seen that a long time must elapse before the first sod is turned in the construction of the Brussels Port de Mer, and meanwhile, the bright visions of the enthusiastic Bruxellois, in which North German Lloyds, Red Star liners, and the greatest ocean steamers of the day came sailing up the Brussels canal, flying their pennants within sight and sound of the Hotel de Ville, are slowly fading away.

DEARTH OF BRICKS IN LONDON.

According to the Morning Post, there is every prospect of a serious crisis in the London building trade in the course of next summer. The cause will not be the ordinary one of a dispute between masters and men; it will simply mean a scarcity of bricks, and this will affect in the greatest degree those suburban houses which are rented at from £30 to £40 a year. It is nearly three years since it was decided that about a third more brickwork was to be put into houses of this class than had hitherto been worked into them. For many years, however, London builders have relied mainly upon Kent, with some assistance from Essex, and the output has been deliberately limited. When, moreover, the demand was made, the fields were unable to respond to it. Railways and sewers, and electric railways were all imperative in their demands. Millions of bricks had been ordered in advance, and the result is that prices are much higher than they were six months ago. Bricks, which could be bought for 34*s.* six months ago, have now risen to 44*s.*, and the cheaper qualities are unobtainable. The results are obvious. Theoretically, no one will regret the extinction of the speculative builder, but in practice the householder will have to pay. With a third more brickwork and a rise in wages, the prices of houses must go up, and the man who wants to buy a small suburban house will hardly care to pay an addition of, say, 20 per cent. House property, therefore, will probably increase in value for a short time, and rents will rise; but the demand for bricks will lead to the opening of new fields, and in two or three years we shall probably be confronted with excessive production, which will mean a corresponding fall in prices. It is stated that arrangements are already being made to open up a very large brickfield on the other side of the Channel.

THE BUILDING TRADE AT WHITEINCH.

The building trade has been exceptionally good during the past year, several large tenement blocks having been erected. The advent of the Lanarkshire and Dumbartonshire Railway, and the opening of the Whiteinch Branch of the North British Line, has done much to stimulate enterprise in this direction. As a proof that the proprietors have not been rashly speculating or providing for imaginary wants in the district, the new properties were almost fully let before being finished. The new shops have also been picked up, and a new block of co-operative buildings, with large shop frontages, erected recently.

ELECTRIC LIGHTING AT NEATH.

The Neath Sheet Steel and Galvanizing Company has just had an installation of electric light completed at the works, near Neath, by Messrs. J. C. Howell and Company, Engineers, of London. The plant affords some good examples of modern construction, and embodies all the latest improvements.

SHEFFIELD TRAMWAYS.

The negotiations between the Corporation of Sheffield and the old Tramways Company have now been finally settled. The company expressed their willingness to accept £28,500, and the Corporation as a final offer named £27,500 in full

settlement. This the company, at a recent meeting, agreed to accept. The amount includes the price of the company's lands, buildings, stables, horses, cars, works, fixed and loose plant, materials and equipment.

ELECTRIC LIGHTING AT CHELTENHAM.

The two street lighting sub-circuits are so far completed that an experimental run of the lamps has been made, the test being in every way successful. The thoroughfares affected, viz.: High Street, between Clarence Street and St. George's Square, Ambrose Street, Station Road, and Manchester Street, in which some fifteen lamps, attached to handsome pillars, are used — were brilliantly illuminated, the contrast between the electric-light and the gaslight in the connecting street being very striking. The lamps are of the Brush-Vienna pattern, with alabastrine globes, which are good in colour, and diffuse the light admirably.

A FALLING CEILING.

In the City of London Court, on Friday, before Mr. Commissioner Kerr, an action was brought by Mr. Thomas J. Howell, electrical engineer, of Warrior's Road, Kennington, to recover the sum of £50 from Mr. H. Finch, publican, 58, Bishopsgate Street Within, E.C., as damages for serious personal injuries. The plaintiff said that, on November 2nd, he went into the defendant's house, the Magpie and Punch Bowl, in Bishopsgate Street. While he was standing at the bar the ceiling came down, striking him on the head. He was rendered unconscious, and had felt very ill since. For the defendant, Dr. Wickham said that he did not think it could be asserted that the plaintiff's injuries were of a permanent character, so far as the hearing was concerned. Mr. Commissioner Kerr gave a verdict in favour of the plaintiff for the sum claimed.

EXTENSION OF DEVONPORT DOCKS.

Four years ago the Admiralty spent £8,000 in enlarging No. 3 dock in Devonport Dockyard, and made it the largest in the yard. It is in this dock that the "Magnificent" and other large vessels are placed for examination and repairs, and it has now been decided to make alterations in No. 2 dock, even far more extensive than those in No. 3. The drawings have been prepared, and to carry out the proposals already approved the sum of £33,720 will be required. As, however, further suggestions will probably be approved as the work advances it is considered likely that £50,000 at least will be spent on this dock before it is completed. The work will be commenced almost immediately, and in order that the contractors may not be unnecessarily interrupted (as was the case when No. 3 was undergoing alterations) the Admiralty has directed that the dock is not to be used except under very special circumstances. No. 2 dock is 432 feet in length, but when the enlargement is completed it will be sufficiently long to accommodate a vessel of 450 feet.

A WELL-DESIGNED lych-gate has been erected on the north side of the old Parish Church of Maresfield.

A MUCH-NEEDED addition to the existing accommodation for infants at the Micklefield Church Schools, erected at a cost of about £1,000, by Mr. Bland, of Kippax Park, was opened last week.

THE deputation appointed by the Gas Committee of the Blackburn Corporation, to inspect the electric tramways worked on the overhead-wire system at Bristol, Coventry, and Walsall, has presented a favourable report and it has been decided to proceed with the "overhead" system in Blackburn.

WITH regard to the new dining-cars which the Midland Railway Company intend running between London and the North, more attention than hitherto has been paid to the question of acoustics and vibration, and ingenious contrivances have been utilized to reduce noise and rattle to a minimum. These consist of the introduction between the underframe and the body of the car of numerous indiarubber springs of a new type. The floor, sides, and roofs of the car have been built up with felt and rubber, hair, and vulcanite between the woodwork.

SOCIETY MEETINGS.

Institution of Engineers and Shipbuilders.—The third general meeting of the fortieth session of the Institution of Engineers and Shipbuilders in Scotland was held recently at Glasgow. A long and interesting discussion took place on Mr. Sinclair Couper's paper, read at the preceding meeting, on the subject of "Internal Corrosion in Steam Boilers."

KEYSTONES.

A NEW chemistry section of the chemical laboratory of University College, Liverpool, was recently opened by Lord Derby.

THE window presented to Hawarden Church by Armenians, in memory of the victims of the recent massacres, will be unveiled to-day.

A fall of about 100 tons of rock recently took place on the Callander and Oban Railway, near he Falls of Cruachan Station.

THE Duke of Saxe-Coburg and Gotha has invested his civil engineer, Mr. G. Croydon Marks, of London and Birmingham, with the cross of a knight of the Ducal Order of Ernest.

A BRANCH public library has just been opened at Avonmouth for the convenience chiefly of the parishioners who have recently been included within the city boundaries.

THE Duke of Beaufort has granted a site of two acres adjacent to the town of Brynmawr for a school, the ground to be laid out to suit the scheme of the Architect when appointed.

IT is proposed to form a company for the purpose of constructing an underground railway from Bridge Road, Hammersmith, to Budge Row, Cannon Street.

TUMBLERS of nearly the same shape and dimensions as those employed to-day have been found in great numbers in Pompeii. They were of gold, silver, glass, agate, marble, and other semi-precious stones.

THE Paris Municipality has resolved to increase, from 98 to 400, the number of infant schools, or rather, places where young children are taken care of while their mothers are out at work. The cost will now be increased to 550,000 francs.

THE Exeter City Council is recommended to carry out extensive works for the rearrangement and extension of the water supply of the city. The estimated cost of the whole of the works is £25,000.

MR. HARRY W. SMITH, deputy borough engineer and surveyor of Bournemouth, has been appointed borough engineer and surveyor of Scarborough. There were 129 applicants for the post.

THERE has just been placed in the south side of Holy Trinity Church, Dobcrois, a stained glass window in memory of Mr. Abel Holmes. The subject is "The Prodigal's Return," which the Artist has developed in a pleasing manner.

THE Halifax Town Council has resolved to refer the plans for the adaptation of the Infirmary buildings, for a police court, &c., back to the committee, in order that the project of an entirely new erection may be further considered.

BEULAH Baptist Chapel, Bexhill, was recently opened. The present building, which has been erected as a memorial to the late Charles Haddon Spurgeon, is a school-chapel, the larger edifice not having yet been built.

THE Mansion House of Cross-Burn, Loans village, in Troon parish, has been totally destroyed by fire. The damage incurred amounts to £2,000. The building was undergoing repair for a new occupant.

AN exhaustive report, prepared at the instigation of the Douglas Town Council, by Mr. Thomas H. Nesbitt, town clerk, has been issued on the electric lighting of Douglas. It is strongly in favour of the electric lighting.

A LANDSLIP has taken place at San Fratello, in Sicily. An entire hill, called Rocca Forte, slid down and completely buried a village. The inhabitants had time to escape, but they have lost everything.

AS a result of the recent heavy rains the Rivers Tame and Anker have in many places overflowed their banks, and adjoining meadows are flooded. A road leading from Bonehill to Hopwash is several feet under water, and traffic on various bye-roads is completely suspended.

AT the site of some new buildings in Museum Street, Oxford Street, the other day, a large portion of the adjoining premises fell with a great crash, causing considerable anxiety and commotion among the inhabitants.

THE directors of the Taff Vale Railway have definitely resolved to close their West Yard at Cardiff, and remove the locomotive, coach building, and repairing yards to a place about five miles from the town. New works will be erected at an estimated cost of £50,000.

AN exhibition of objects of Science and Art was recently opened in the old Savings' Bank Building, Truro. The exhibition includes a very valuable and interesting collection of scientific and Artistic treasures, including a large consignment from the South Kensington Department.

ROBERT RUTHERFORD BUCKESETTER, a steeplejack, of Padiham, was ascending a new mill chimney at Great Harwood, near Blackburn, holding on to the rope only with his hands, when he fell a distance of 100 feet, death being almost instantaneous.

IT is stated that the fund being raised for the purpose of founding a memorial of the life and labours of the late Archbishop of Canterbury has now reached over £3,000, this including a donation of £100, provided that a portion of the fund is spent on the completion of the nave of Truro Cathedral.

THE commencement of two undertakings of some importance to West Hartlepool is promised for the New Year, viz.: the proposed new post-office in Whitby Street, and the contemplated extension of the electric tramways to Foggy Furze and to Seaton Carew.

A GENERAL meeting of the North of England Institute of Mining and Mechanical Engineers was recently held in the Wood Memorial Hall, Newcastle, Mr. G. Baker Forster presiding. Mr. Morrison resumed the discussion on Mr. W. Blakemore's paper on "Coal Cutting by Machinery."

THE Bridgend and Cowbridge Board of Guardians has resolved to advertise for sites of eight to ten acres of land close to the town of Bridgend for the building of a new workhouse. The present building is overcrowded, and has long been found to be too small to meet the demands made upon it.

A MASSIVE memorial in gold-medal stone has just been erected in St. Edmund's Churchyard, Castleton, to the memory of Mr. Isaac Hall, who was well-known as guide to the Peak Cavern. The monument is of Norman design, and the pillars have been worked out of a solid block.

THE freedom and livery of the Plumbers' Company have been presented to ex-bailie Crawford, of Glasgow, in recognition of his public services in securing the registration of plumbers, and the active part he has taken in promoting sanitary legislation.

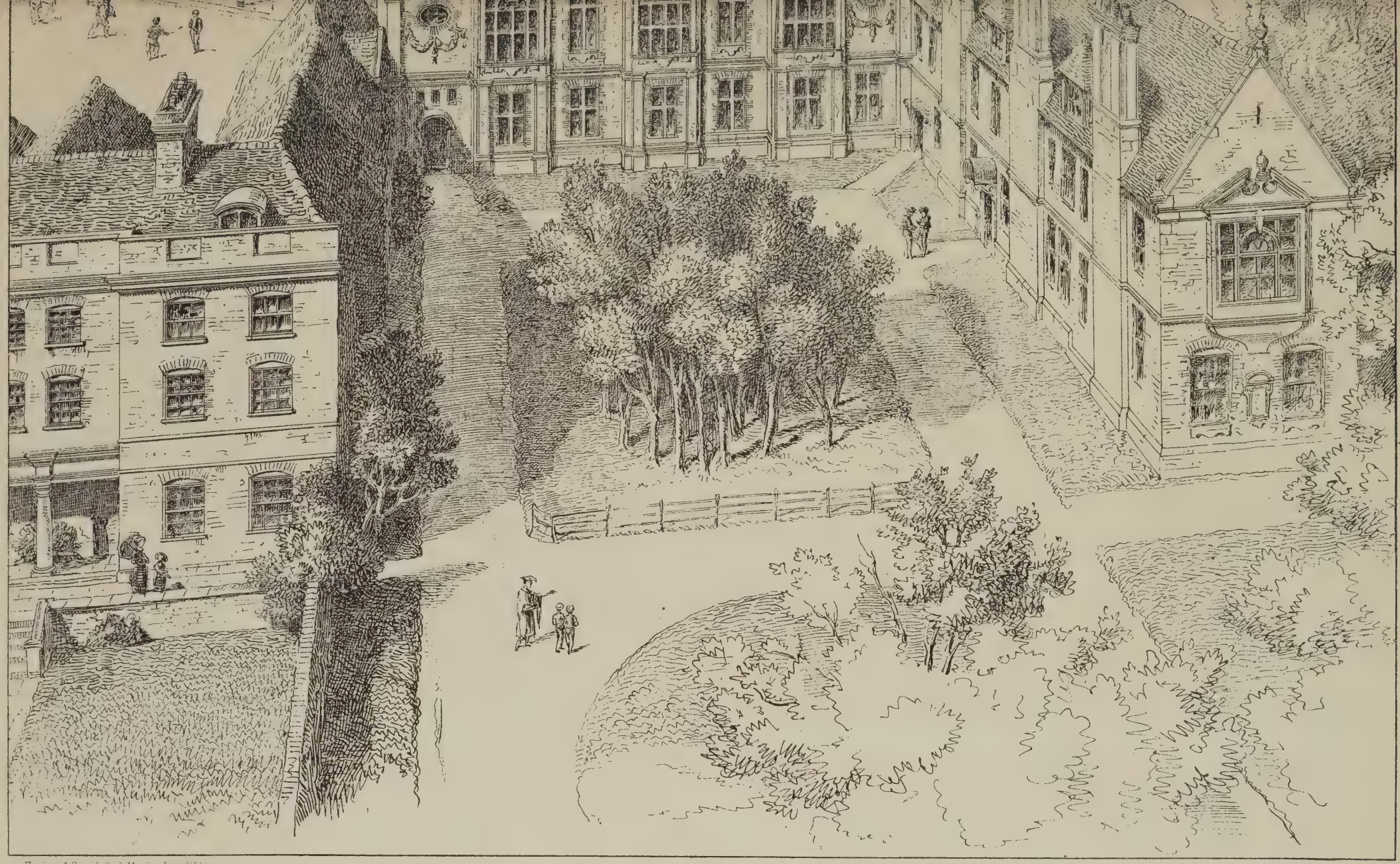
A PICTURE of a Church window was recently published in a Church paper, in which the counsellors of King Saul are Lord Salisbury, Mr. Gladstone, and the late Lord Beaconsfield. More astonishing still, the King is no less a person than the Sage of Chelsea—Thomas Carlyle—while David has the head and shoulders of Adelina Patti! Imagination plays no part in this remarkable window. All the figures are lifelike, and can be recognised at the first glance. The Church in which the window can be seen is at Elham, near Folkestone.

THE new operating theatre, which has just been provided at St. George's Hospital, is situated on a level a few feet above the second floor of the institution, and its arrangements, fittings, and lighting, and the provision of adjoining chloroform rooms, a sterilising room, and nurses' apartments, guarantee for this department of the medical work of the hospital increased efficiency and success. The walls and ceilings of the theatre are lined with white glazed tiles, while the floors are of marble mosaic.

IN the Civil Court at Leeds Assizes recently, an action was heard in which the Mayor and Corporation of Leeds sued Mr. William Robshaw for £437 for sewering and kerbing, executed during the construction of a road called Vesper Road. There was a counter-claim for land taken by the Corporation for the formation of the road. After the case had been partly heard a settlement was arrived at, and judgment was given for the Corporation on the claim, and judgment for the defendent on the counter-claim for £125, each party to pay their own costs.

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QUEEN ELIZABETH'S GRAMMAR SCHOOL, CRANBROOK.

(From the original Drawing by T. G. Jackson, R.A.)

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No. 101. **Wed., January 13, 1897.**

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"The Architectural Association again." MR. LETHABY has been telling the Architectural Association that, if the Association intends seriously to take up practical work, he will see whether some scheme cannot be devised for providing properly equipped workshops of an adequate size. The occasion on which this remark is stated to have been made was a "Workshop Evening" at the Architectural Association, and the member who reported the event, tells us that the Workshop Evening was a very pleasant evening, "despite the chopped fingers and the stone-dust in one's hair, and in every corner of one's clothes." The entertainment otherwise consisted in each member working a plain face on a rough block of stone, and its special usefulness appears from the report to have been that the members, "realised pretty clearly what working the harder stones really meant," while its success is evinced in the fact that there was regret that the two hours did not permit of the work being finished, and that the attendance was "really greater than the capacity of the room permitted." This brings us back again to Mr. Lethaby, and his suggestion for "*properly equipped workshops of adequate size.*" The event reminds us of another of twenty years back: of Mr. Ruskin and his road-making at Oxford. We also remember that the road was never finished. A disordered upheaving of the soil, arable or pastoral, was the exact sum total of the result of that enthusiasm; and we hope that no more damaging result to the prospects of the embryonic Architects at Great Marlboro' Street will be affected than the stained clothes and damaged fingers reported by the ecstatic journalist member. Though exceedingly young men may delight to throw off the humours of a long day of sedentary work with a tough bout of hammering, and rejoice that they break their fingers and suffer grit in their hair, in the cause of a holy enthusiasm (for is not all enthusiasm holy in extreme youth?), they cannot hope to win serious approval of the profession, except in that what they do is healthy and natural for those of their state and is inexpensive, and, for all the broken fingers, quite harmless. Mr. Lethaby is a coincident only. Like Mr. Ruskin, if there were two of him there would be one too many. Now we have all read our Vitruvius; in translation and in quotation probably, but we have read him, or enough of him, and we all know his receipt for an Architect. Besides being a philosopher and a metaphysician, and an Artist in music, sculpture, painting, and letters, with many other things; an Architect is to excel the masters of each particular craft of building. But however competent the human species was in the days of Vitruvius to supply specimens worthy of qualification for Architects after this measure, we may rest assured that that competency is now exhausted. The human race seems to have degenerated, for in these days we not only cannot find men who excel in more than one thing, but among Architects at least, we find that a serious attention to the details of craft and of the building trade, detracts from, and mars, those rarer qualities of breadth of Artistic feeling and constructive design which are the first attributes of a great Architect. An Architect in his designing needs not to be first a mason, then a carpenter then a plumber or bricklayer, as his pencil arranges one part or another in his elevations; in fact, it is true to say that so soon as a man is imbued with the actual technicalities of the fact of handicraft, the power of true design must pass from him. He becomes a builder. Our



THE SCHOOLS, OXFORD. T. G. JACKSON, R.A., ARCHITECT.

friends at the Architectural Association are certainly at liberty to ride their hobbies, but a man's hobbies should be apart from his formal education. The exercise and the mental recreation of labour, and particularly of labour that distracts the mind, is known to be of great value to men with instincts of high activity, but to obtrude the minute technicalities of craft into the Architectural education of a young Architect is a thing that can serve no advantageous end to the profession. In the high tension of the educational processes of our day, too, we must remember that every hour seriously given to testing the practicability of solder joints, for instance, is an hour seriously lost in the acquisition of other vital knowledge.

THE ARCHITECTURE OF DUBLIN.

BY THOMAS DREW, President R.I.A.I.

SPEAKING at a meeting of the Architectural Association of Ireland, Mr. Drew said that in the study of Architecture they had remarkable advantages in the city of Dublin. They lived in an old historic city, which contained many respectable monuments. There was a picturesqueness of Architectural effect, the study of which could not fail to be of the greatest interest. The city presented a strong contrast to new towns like Birmingham and others of the kind. London, of course, had great Architectural wealth, if the student could only find it. Westminster Abbey, St. Paul's, and other fine buildings presented most attractive features. Edinburgh also presented a fragmentary view of fine Greek Architecture—it was in fact an Architectural dream for the Architectural scene-painter. For his part he preferred Dublin before all the towns and cities of the United Kingdom for the enjoyment of the student of Architecture, if he only opened his eyes. It had good and ancient Architecture, and afforded groupings which might make the fortune of the Architectural Artist. Referring in detail to some of the buildings in the city, he said that in streets like Dame Street and College Green they had bold and various specimens of what he might call the

DUBLIN ARCHITECTURAL VERNACULAR.

The Architects who designed some of them were mostly still living, and he was accordingly debarred from criticism. There was, however, in that neighbourhood a great deal to be learned, and a good deal of refinement of design to be seen. The student after the current Architecture of the day could fall back on the main Architectural wealth of Dublin, among which would be found numerous specimens of the classic work of the eighteenth century. There was scarcely an example in Dublin which was uninteresting; there was an extraordinary variety of genius evinced, and boldness of design. In the matter of food for Architectural study Dublin had a great pull over the ordinary British towns of commerce in its picturesqueness and pictorial capabilities, and in what he might term its unsophisticated grouping, as distinguished from the slavish following of lesser ghosts after greater ghosts. Having spoken of draughtsmanship, and the necessity for a study of perspective drawing, he said there was no class of drawing more popular or more saleable than the painter's rendering of familiar street subjects. As an example the lecturer showed a London street subject

DRAWN BY ERNEST GEORGE.

Some people might ask where were they to get such subjects in Dublin? If they went to Nicholas Street, or to the neighbourhood of the old city wall at Back Lane, they would find excellent materials for such street pictures. A representation of squalid Patrick Street, with the extraordinary wares exposed for sale, could be made most interesting as a picture. He would advise students never to study Irish street subjects in wet or gloomy weather. In the Cathedrals the water-colour Artist would find a score of subjects. In the Upper Castle Yard there was not much Architecture, but work would be found there quaint and Dutch-like. Interesting groupings would also be found about the City Hall and Trinity College. Mr. Drew spoke at some length of the Architectural features of the old Parliament House, and in connection with its design mentioned the names of Richard Cassell, Captain Edward Lovett Pearce, and Robert Parkes. Among several Architects who gained fame in connection with old city buildings, the lecturer spoke of Thomas Cooley, who designed the Four Courts, and Gandon, whose great work was the Custom House. The latter building was something out of the common, and had much simple dignity. If they excepted the soup tureens which served as chimneys, many of the details of the building were worthy of study. The greatest of all the privileges open to Architectural students in Dublin lay in the two Cathedrals. Church Architecture in Ireland was, he thought,

AT A LOW EBB.

They had, in former years, much cleverer work, and the tendency was to go on repeating these clever features until they got a family likeness over the country, from which it was time to break away. It would be a good thing for the members of this Association to turn their backs on what was merely turned out day by day in the nearest Churches, and begin to diligently study in the books at their disposal what the mediæval Architecture of England had been. In past ages there was a vast variety, and the student might be able, from a study of English mediæval Architecture and French Architecture, to produce Church work not so cut-and-dried as what prevailed in Ireland at present. Christ Church Cathedral afforded a curious variety of thirteenth-century work. Patrick's Cathedral presented more material for study than anyone gave it credit for. It was a very beautiful plan, and a curious circumstance about it was that it was based on a system of equilateral triangles. There was much old and genuine work in the north choir aisle. St. Patrick's was quite a haunt for the student of water-colour delineation. It had a peculiar charm of picturesque lighting which made it the delight of the Artists who studied there. Having made a short reference to St. Audeon's, which, he said, had a good arcade and presented interesting features of mediæval Architecture, he went on to speak of the Architectural state of the first half of the present century, and said it was perhaps the worst epoch, from the point of view of Architecture, seen in this country in the course of six or eight centuries. He hoped, however, there was going to be a great revival, and he hoped that that Association would be the means of bringing it about. There was no place where those who wanted to study city buildings were more welcome to do so than in Dublin. They had the whole run of the town, and there was no obstacle to anyone who wanted to study, and if the members of the Association could not find work to do about Dublin he thought it would be their own fault.

THE Warrington Corporation has concluded the purchase of Old Warp's estate, Latchford, the property of the late Alderman Joseph Davies. The estate extends to 52 statute acres. The object of the Corporation is to transform it into a public park. The price paid was £10,000.

THE latest munificent gift to the town of Auchterarder, of an illuminated town clock and bell, placed in the tower of the hall erected to the memory of Captain Aytoun, of Glendevon, has just been formally handed over to the burgh authorities.

MR. EDWARD DAVIES, of Plasdinam, is now erecting, in the village of Llandinam, a village hall for the use of the inhabitants. Besides a large room for the holding of public meetings, the building contains two rooms for the meetings of the Society for the Promotion of Literature and Music. He also intends to add a village library.

THE Regina Hotel, where the Queen-Empress is to spend her spring trip, is nearly ready for the Royal visitors. It is a magnificent building, situated in its own grounds on a height that commands beautiful views of the Mediterranean and the maritime Alps, and the frontage is quite 200 yards long. The rooms that are being prepared for the Queen are very beautifully decorated in different styles, and the whole of that section of the hotel which is set apart for Her Majesty leaves nothing to be desired.

THE CENTRAL SCHOOL OF ARTS AND CRAFTS, REGENT STREET.

WORK has recommenced at the new Central School of Arts and Crafts, which was opened in October last, at 316, Regent Street, opposite the Polytechnic. The School has been established by the Technical Education Board of the London County Council, and is under the direction of the two Art advisers of the Board, Mr. George Frampton, A.R.A., and Mr. W. R. Lethaby. The object of the School is to provide for artisans, who are engaged in trades where Artistic handicraft is required, a training both in the principles of Artistic design and in the application of design to their specific industries. The teaching is throughout specially directed to the requirements of the trades in which the students are engaged, and the School is only open to those who are actually working at a trade. At present the School provides teaching mainly for those who are engaged in the silver trades and in those branches of the building trade where Artistic training is specially needed; but steps are being taken to provide for other trades, and it is not impossible that out of the nucleus which exists at the Regent Street School, there may eventually grow a complete system of Artistic and technical instruction, which will ensure for the artisans of the metropolis that sound and practical Artistic training which they require to enable them

TO HOLD THEIR OWN

in the industrial struggle with foreign countries. The instruction given to all classes of workers in the silver trade is very complete. The teachers are practical men who are themselves in the trade; Mr. Steward being the instructor in silversmiths' work, and Mr. Fisher in enamelling. The other important branch of the School is that which is devoted to the building trades. In this department the Board has secured as teachers the best men that could be found. Architectural drawing and design is taught by Mr. Halsey Ricardo, while in concert with Mr. Ricardo's course a series of lectures is given by Mr. R. B. Molesworth, on the "Mechanics of Construction." Mr. Roscoe Mullins gives instruction in Modelling, with special reference to its application to Architecture, and both he and other teachers give general instruction in drawing and design. The Architectural Modelling and Drawing studios are equipped with a large and varied assortment of casts and specimens, and they are open to students for practice during the daytime. As the students are usually engaged in their trades during the day, the instruction is given in the evening. Technical classes for special departments of the building trades are held in the following subjects: stained glass work, ornamental lead work, masons' work, and cabinet design; all these are taught by men thoroughly conversant with the special Arts, the stained glass work being taught by Mr. Christopher Wall, and the lead work by Mr. F. Troup. In order to place the School within the reach of those for whom it is intended, the fees have been fixed at a low figure. The ordinary fee (for all classes except the life class) is 2s. 6d. a month. Workmen who are in receipt of less than 30s. a week are admitted on payment of 1s. a month, and apprentices, learners, and improvers are admitted free. Full advantage should be taken of the opportunities offered.

THE Great Western Railway Company proposes to construct a new bridge in substitution for the existing one carrying the Great Western road over the main line at Westbourne Park Station.

IN connection with the private view of Lord Leighton's sketches, it will interest Art-lovers to learn that the sum of £1,000 has been guaranteed in order that a selection of sketches may be purchased for replacing in the house.

A TERRIFIC gale recently blew over the South Durham district, and has caused much damage to property. At Wellington, a school building was blown down, and part of a new building shared the same fate.

MESSRS. WORKMAN & CLARK, of Belfast, who are building three new boats for the Cunard Company's Mediterranean service, will launch the first one early next month. These vessels are between 4,000 and 5,000 tons, and are, therefore, the largest that have yet been built for the Mediterranean traffic.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

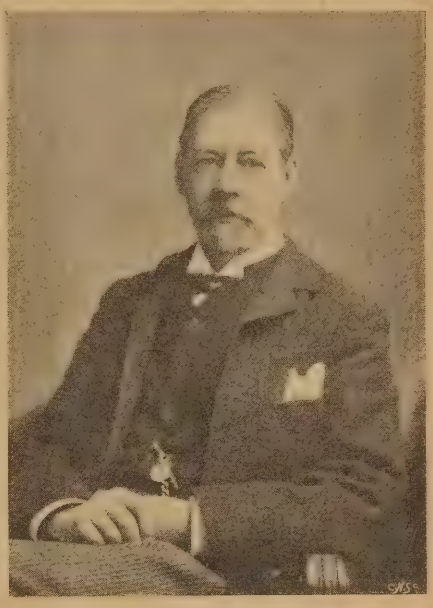
MEN WHO BUILD.

No. 48.

THE COLLEGIATE WORK OF T. G. JACKSON, R.A.

THERE is with us, at this latter end of the nineteenth century, a certain saying in criticism of our civilization which is becoming almost a tiresomeness to the ear, as though its truth from being so long obvious had grown at last a veritable blatancy by usage. The man who now writes for us to read, or tells to us, with the importance of delivering himself of an originality, that time passes very much faster now than it did in our grandfather's day, we probably set down as a humbug, or at best, if we are charitable, are indignant at being fobbed off with cold porridge with the flourish that should introduce the boar's head: there is little that is more ruffling in converse than the framing of an obviousness. This truism, nevertheless, this comment on our modern tendencies, was, when new, replete with suggestiveness, and, even now, may serve to point us to a pleasant fantastic introspection of the phases of our present order of living, by reminding us that the passing of time is the making of history, and that, in these active days, history is being reeled off at a surprisingly high rate of speed. History is now being made faster than it has ever yet been made in the level epoch of the history of humanity, and this brand-new fabric, which in a hundred years time will be unhumanised and reduced to dates, and names and facts, is now weaving in our midst.

It must, however, be obvious that this prodigious activity in the manufacturing of history, does not extend to the Arts—nor, in particular, to Architecture. Mr. Frederick Harrison, indeed, in some of his latest essays, has shown that the Victorian Era will stand famous in the records of posterity for its researches, and for the names of its scientists. This same period, it is true, has been responsible for the entire writings of John Ruskin; but the wide stimulating activity evoked by Mr. Ruskin's books, both among those who joined in his views and enthusiasms, and those who depreciated and abjured them, has not left any very distinct mark in the development of Architectural history, if we except one or two particular buildings, such as Messrs. Deane and Woodward's University Museum at Oxford, which, however, are, in chief, remarkable as instancing how little the fact and letter of his teaching has been incorporated in our Architecture. We must rather look to where the voice of Horace Walpole, novelist and curiosity hunter, after immortalising itself in the perpetration of those grizzly inspirations at Strawberry Hill, has been slowly and gradually dissipating itself through the work of successive generations of Architects, much as a hereditary taint will fade to imperceptibility at the fourth or fifth generation. There is no doubt that the trend of England's Architectural history has been, and still is, upon this path that leads from Strawberry Hill. Carlyle has pointed out to us that the histories of nations are but the biographies of their great men, and if we consider



upon those living Architects whose professional lives follow out most exactly the diverging threads of the Gothic Revival, and who are, therefore, foremost in historical importance, the subject of this article, Mr. Thomas Graham Jackson, will be acknowledged to hold a leading place.

There is a certain fitness and reason in this. Mr. Jackson, so to speak, is a scion of the parent stem; his Architectural pedigree is irreproachable, for he became a pupil in Sir G. Gilbert Scott's office on the completion of his University career. This was in 1858, when the activity of the Revivalists was at its highest. Wyatt, Pugin, Barry, Scott, were all hard at work, and we are to believe that public opinion and criticism was in that day closely centred in the renovation, and Architecture, as rendered by these men and their opponents, was much more widely considered of the people than is the case now, or had ever previously been known in this country. Nor is this strange when we remember that there rarely is a thing Artistically inadequate or clumsily done with any flourish of pretension but the British public has up and clapped its hands. The idiosyncrasies of Horace Walpole have even provoked a light rattle of pleasantry from the big guns of Macaulay, who says—"with the Sublime and the Beautiful Walpole had nothing to do, but the third province, the Odd, was his peculiar domain." So also in the Architecture of Mr. Jackson's master, the Sublime and the Beautiful is still subservient to the Odd, and it is only as this same oddity of the Revivalists has faded from their designs, as accumulating experience has shown them in what the charm and fascination of Gothic Architecture is constituted, that public interest has turned away the countenance of its regard. Now that Gothic proportions have, in the work of the best Architects, grown to be balanced and just, and the detail to fall aptly with the rest of the design in that harmonious unobtrusiveness we know in the best Mediæval work, public interest has withdrawn even from Ruskin's "Foolscap in Freestone" at St. Stephen's, and turned to red tiles, and hips, and white bargeboards, and the works of Mr. Aubrey Beardsley.

Mr. Jackson earned public regard as an Architect and an Author so many years ago (his first book "Modern Gothic Architecture" being published in 1873), and has since, by a long sequence of conspicuous works in Art and Letters, held for himself a position of such distinction in his profession, that any intimate review of his career and his successes would seem almost superfluous. Six years after the completion of his term of articles, he became yet closer allied with the University, being elected a Fellow of Wadham, where previously he had held a scholarship, and it must seem a most happy casting of events that has made Oxford the scene of his most important works. Yet Oxford has been more than this to him. In his case she has been literally and



BRIGHTON COLLEGE, NEW GATEWAY AND BOARDING HOUSES. FROM THE ORIGINAL DRAWING BY T. G. JACKSON, R.A.

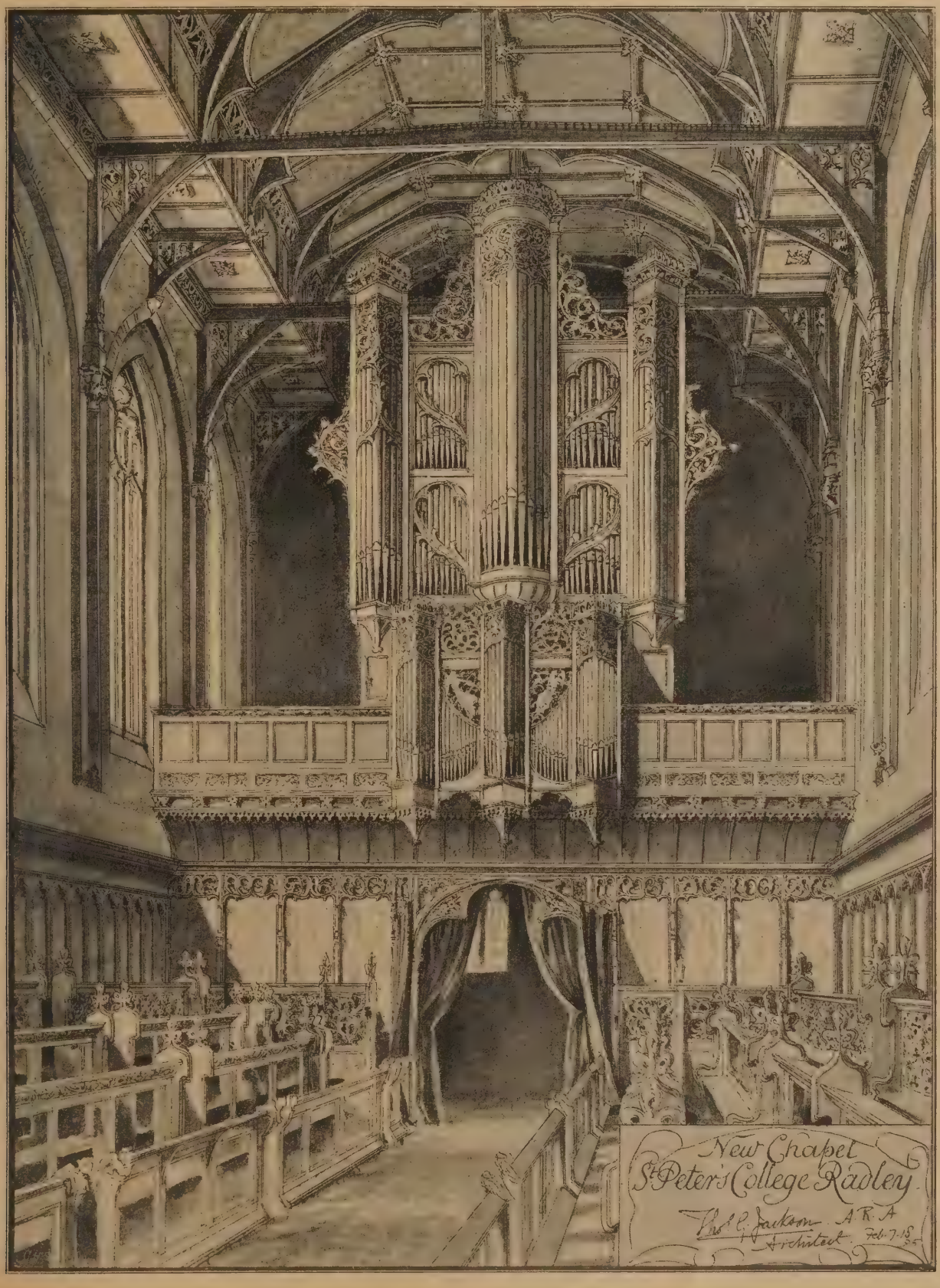


BRASENOSE COLLEGE, OXFORD. NEW FRONT TO HIGH STREET. T. G. JACKSON, R.A., ARCHITECT. FROM THE ORIGINAL DRAWING.

uniquivocally his *Alma Mater* in a fastidiously sincere and exact interpretation of the term. That Mr. Jackson, in his undergraduate days, was deeply imbued with the kindling sentiments of the place, and impressed by its wonderful beauties and charms, is sufficiently apparent in

ments of his career, we are not to suppose that in becoming the pupil of that eminent Architect, who, in his day, was most intimately associated with the revival of Gothic Art, he was any child of circumstance, but that his act was a deliberate choice. Oxford's lichened walls had already,

working details of the Brasenose College front on to the High Street. The Architect himself regards these buildings at Brasenose as his best work, and in particular holds the elevation between the tower and the porch of St. Mary's, with its four gables and its oriels, as his happiest and most



view of his early attachment to the place, and the direction in which he elected to develop his generous endowment of abilities, and in the precision with which he set himself to qualify as a Collegiate Architect. Mr. Jackson has built in many styles, he has written of several, in these respects he has shown the cosmopolitan tastes of the scholar, and from the subsequent develop-

nearly twenty years before, given their message to a very different temperament when they inspired the poetic nature of John Ruskin; in Mr. Jackson's case, their message was to a scholar.

The illustrations which accompany this article record some of Mr. Jackson's best inspired work and most admired buildings, and we are able, by his special permission, to publish one of his own

successful design. Perhaps Mr. Jackson, in discriminating thus, is conscious of a shade of incongruity in the tower of the Gatehouse: it is, in fact, not quite in technical keeping with the rest of the design. There is that quality in this front as though the Gate Tower were a relic of an earlier building; it stands accurately true in its detail to the traditions of English Gothic, while the

brattishing, or cresting, upon the oriels would alone distinguish that part of the building from having an origin in Mediæval design. This tower is literally exact to the traditions of the Oxford Gatehouse; there is no need of the characteristic angle turret to its identification, were we to meet with it even, let us suppose, in Asia, while in the frontage there is surely a delicate suggestion of something not unassociated with the Jacobean period. It is pedantic, and perhaps devoid of much meaning or interest, to identify the personality of an Architect with some past tradition of his Art, but if this be done it may be said that it is to this Jacobean feeling that our Architect leans in the design of much of his Gothic work; and it is by this term, "Jacobean," that such buildings as the New Examination Schools, Trinity College, and the addition to his own old college of Corpus Christi, are best designated. It may well be fancied that Mr. Jackson was touched by the charm of the quaint tower to the Gatehouse of the Old Schools, which he restored, together with the Bodleian Library, at a very early, and therefore susceptible, period of his career.

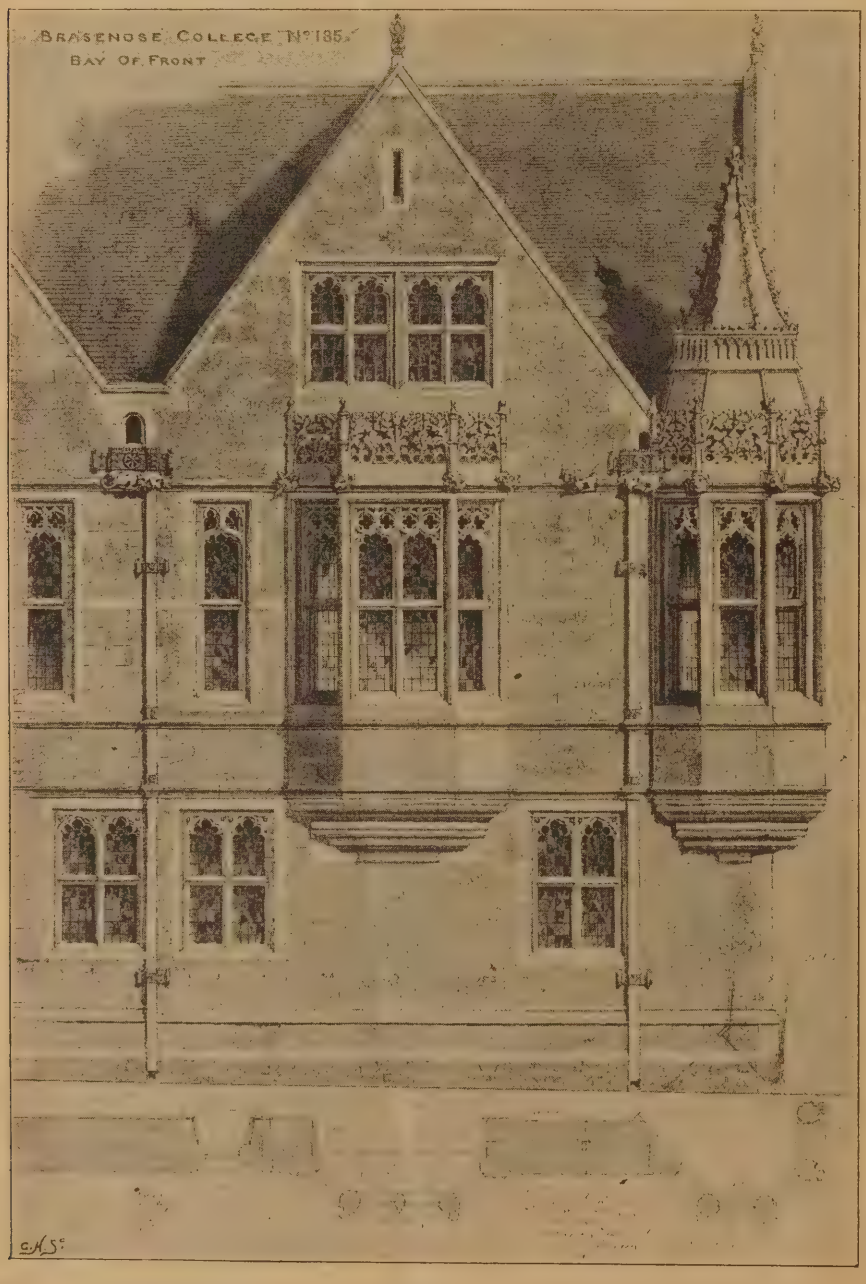
It has been said, with some fair balance of truth, that while depreciation of a bad work of Art is best conveyed, not by wholesale denunciation, but by particularising any meagre details of a better ordering, and contrasting them with the glaring inefficacy of the remainder; so a degree of excellence may be most fully relished if those special features which lack the distinctive quality of the work as a whole, are considered, and their shortcomings contrasted with its other admirable aspects. The recognition, also, which Mr. Jackson has won, is not confined to the scholars and Artists of this country only, and his success is otherwise so fully and steadfastly assured him that a frank analytical regard of his work is no other than he must expect. In the tentative work of a young man there is either an undue admiration of "cleverness" (which in Art is a sort of precocity) or an intolerant prejudice against what may appear his presumption and aggressiveness. It is, however, an attribute of well-merited success such as Mr. Jackson's, that it finds few concessions as it should arm no prejudice.

We have already characterised Mr. Jackson as a scholar, and it is in this quality of scholarship that there lies both his strength and his weakness. These qualities which achieved for him his Fellowship at Wadham, and which may be recognised in his writings, have given him a personal distinction that is very rare among Architects, but it is this same instinct of the scholar that has precluded him from cultivating that self-concentration which must ever be the vital genius of the great Architect, as it must be of a great Artist in any other calling. It was probably this same ability for acquirements of culture and distinction, that robbed the work of the late Lord Leighton of the higher qualities of a painter. It may be said with some truth of the Gothic Architects of a previous generation, that their stimulating motive was likewise that of the scholar, and that this is particularly the case with Pugin and with Scott, but their scholarships were of a very different nature to that of Mr. Jackson; their work was rather empirical than scholarly, they were rather experimentalists than students.

For these reasons, just as in the case of Scott and of Pugin (who, however, often made no pretence of practising what he so strenuously preached), we may notice in Mr. Jackson that same effort and lack of facility and felicity in much of his work which we find in Scott's, and which must always exist when an edifice is raised from man's conscious mind and feeling, rather than from those deeper spring of intuitive impulse which knows no why nor wherefore.

There is in Mr. Jackson's work a certain effort in the achievement of the proportions, and a lack of unity in the parts: a tentativeness, as though memory, and not conviction, directed him; the classic and the archiac, so to speak, are too often seen a-jostle in his elevations. It is, happily, growing an obsolete criticism to condemn a doormould because it shows in its origin an earlier or later tradition than those of the windows; still, a sense of anomaly must not be provoked. The taste in Architecture is an educated taste, which is as purely conventional as that of Music. If we travel far East we find both Architecture and Music which need in us a fresh education to their just appreciation. For this reason abruptness of originality is not admissible: the Architect should avoid obvious elisions and interpolations in the grammar of his Art, for unless these irregularities fall to combine in some noble effect that may carry them off, they must appear as mere Architectural solecisms. Mr. Jackson's archaic frieze below his cornice member, in the front of the new schools on to the "High" is a distraction from the merits of the elevation, and we may add a painful one; so also is the rough walling to the Trinity buildings. Those who have seen them will know that they keep pretty closely to the traditions of the Jacobean period, and the sentiment of this style is so closely allied with fine-cut ashlar and jointing, that the squared rubble Mr. Jackson seems to have used, as it has no ostensible purpose in giving texture to his design, suggests hurry and cheapness, qualities which, beside the vile instincts of so much building of our present day, are of all things most provocative of disgust. Perhaps his building in other environments would not occasion this passing offence, but in Oxford, which is, right and left, a breathing reality of the noblest inspirations of Architecture, a suggestion of falseness strikes home.

We may notice, too, in Mr. Jackson's buildings, an inclination to strong and abrupt projection. As we have been speaking of Trinity we may instance it there in the gables. Upon the comparatively unbroken surface of the walls, the columns and the mutules bearing them start out somewhat awkwardly. The same heaviness of detail may be seen in the Corpus building, while even the beautiful oriels of Brasenose have this fault. Oxford is full of oriels all sitting with a delicious snugness upon their respective walls, and it must be admitted that after passing up "the High" from Magdalen, Mr. Jackson's oriels seem to hang in a sort of desperation under his gables, clinging there like the nests of swallows. The comparison may sound picturesque, but a swallow's nest is a wonder, and it is an excrescence, and whatever holds such attributes in Architecture admits a blemish. We may see by the drawing published in these pages what the actual projection is, but the poise of an oriel is a subtle matter, and relies on more than may easily be judged from plan and elevation.



BRASENOSE COLLEGE. BAY OF FRONT. T. G. JACKSON, R.A., ARCHITECT.

MR. RIENZI WALTON, on behalf of the Local Government Board, has held an inquiry at the Guildhall, Conway, respecting an application to the Local Government Board to sanction a loan of £3,000 for sewerage works, £350 for street improvements, £450 for water supply, and £100 for the extension of the gasworks.

THE recent talk about the neglected mineral springs of the metropolis has led to the discovery—or, rather, rediscovery—that some of those by which the Hampstead ponds are fed possess undoubted mineral properties. The largest of them, it appears, rises in the Vale of Health, and yields about 100 gallons a-day.

THE ANCIENT CITY OF NIPPUR.

PROFESSOR HILPRECHT, curator of the Babylonian department of the University of Pennsylvania, has made discoveries, says a Philadelphia correspondent of the Chicago Chronicle, which push history, of which there are written records, back to 6000 B.C. He has written sight records that probably carry back human history to nearly 10,000 B.C., and is able to see beyond this period to a very ancient prehistoric period, which makes the chronology of Usher, printed in most Bibles, and which places the beginning of the world in 4004 B.C., look rather ridiculous. The discoveries of Professor Hilprecht were all made possible by the material gathered together by the University of Pennsylvania's Babylonian Exploration Expeditions, and these expeditions were made possible by the liberality of a mere handful of wealthy Philadelphians, who subscribed nearly 70,000 dollars to support what are now known the world over as the Nippur Expeditions. The explorations of the antiquities of Babylonia have been going on for eight years, and after a lull since last spring they will be renewed next spring upon an entirely new basis, and a new campaign to last three years will be begun, of which marvellous things are expected. The work of these three campaigns

HAS ALMOST REVOLUTIONISED

all ideas as to ancient Babylonian history, and will be the foundation for some of the most important volumes on Archæology ever written. At 4004 B.C. there was a very polished civilisation existent in the valleys of the Tigris and Euphrates, and which had been existent for many millenniums before. And of this very ancient civilisation Nippur had been the holy city, sacred to the god of these ancient peoples. A city marked by massive temples and showing a high state of civilisation, and yet of such antiquity that the story of civilisation as related by the legends of those who remembered Nippur and its greatness, declares there was a time when heaven and earth were not created and the city of Nippur did not exist. Nippur at present, then, easily figures as the most ancient city in the world, and it is through, in, and by Nippur that the discoveries have been made that have unlocked the secrets of the centuries and pushed the records of civilisation so far back as to startle even those who are accustomed to delving in the remote past. The spot that is now famous over the world is a ruined city, lying between the Tigris and Euphrates, about 150 miles south of Bagdad. The ruins form a conical hill, rising out of the level and marshy fever-breeding plain to the height of about 100 ft. The central portion of the ruins is about 45 ft. higher than the mass of the surrounding *débris*. Layard, the Assyriologist, who prospected in the Nippur ruins a number of years ago, was of opinion that nothing of value would be found there.

USING MODERN METHODS

of research, however, and cutting down by means of huge trenches, the University's workers have accomplished wonders. The way in which the age of the different inscriptions and finds is determined is the same as the method used in determining the age of the earth—by means of the superposition of the strata, that lowest of all being the oldest. Applying this method to the great ruins at Nippur, as the explorers gradually worked down into the mound they found various levels, which, by means of inscriptions, were identified, and these acted as keys to the determination of the whole mass. On top of all were the ruins of modern times, from the present down to the early centuries before Christ. The first great dividing line was the discovery of the platform of Ur-Gur (about 2800 B.C.), on which the great temple tower, which was rectangular in shape and about 197 ft. by 177 ft., composed of three terraces, the lowest story of which was about 21 ft. high. This temple tower was built of a solid mass of brick, and was called a zigurrat. Below this platform of Ur-gur was discovered the pavement of Sargon (3800 B.C.), built of huge burned brick. Below the pavement of Sargon the *débris* extends over 30 ft. before the

GROUND LEVEL IS REACHED.

Of this Professor Hilprecht says:—"If, roughly speaking, the discoveries above the pavement of Sargon represent the accumulation of about 4,000 years for about 40 ft. of material, then the 30 ft. below Sargon must represent at least 3,000 years of growth, as there being no great tower temple (zigurrat) to add to the *débris* by its crumbling the deposit of *débris* must have been much slower, and hence the age of the original first settlement at Nippur, one of the most ancient known to history." The determination of age and periods by means of strata is only one of the ways of getting at the secrets of antiquity. The other methods are reading of the inscriptions found, study of the Art works, and a minute comparison of all the details of life unearthed. Having gone all over this for years, Professor Hilprecht summed it all up by telling the story of Nippur somewhat as follows:—The most ancient inscriptions found show that over 8,000 years ago, probably 10,000 years ago, there was an advanced civilisation in the Babylonian plain, lying between the Tigris and Euphrates. The Persian Gulf came further inland then, and Nippur was near the sea-coast. Forests of subtropical character flourished, and the people lived a simple agricultural life, with the Arts quite advanced and writing considerably developed beyond the simplest forms of picture writing. This country was called Kengi, the land of the canals and the bulrushes, for agriculture at that early date was pursued by means of irrigation, and among the vegetables raised, the onion was highly prized. The people of the land of Kengi were not Semitic, but Sumerians, who had a curious language of a type something like the Finna Tartarian, a Turkish stock with a vowel harmony. As none of the modern forms of language are like it, deciphering the Sumerian inscriptions is

NOT A SIMPLE TASK.

Nippur was the centre of the religious worship of the Sumerians. This is shown by its great prominence in the records, and the fact that at Tello, a very ancient town in the south of Nippur, the gods are said to be the sons of the Bel (Baal) of Nippur, and the kings of Tello ascribe their election to the Bel of Nippur. In time, the Sumerians became effete—even at that early day civilisation wore out—and the Semitic nomads, who had been hovering for many years and through many dynasties on their northern border, were able to conquer some of the outlying towns. One of these was Kish, which was taken by the Semites about 5000 B.C. There was then on the border a mingling of the two civilisations. The invaders adopted the manners, customs, writing, and religion of the invaded, and in this way the Sumerians impressed themselves on their conquerors. When it is remembered that until recently both Maspero, the great French authority, and Winckler, the German *savant*, put the most ancient Babylonian civilisation known to history at 3500 B.C., the revolution in Archæology accomplished by the Philadelphia Babylonian Exploration Fund, which allowed Nippur to be dug up, can be easily estimated.



NEW BUILDING FOR CORPUS CHRISTI, OXFORD. T. G. JACKSON, R.A., ARCHITECT.

THE Leatherhead Water Company is about to construct an additional reservoir, with a capacity of 1,000,000 gallons.

THE Dean and Chapter of Salisbury Cathedral appeal to the general public for additional aid for the repair of the tower and spire of Salisbury Cathedral. Already £10,000 of the £15,000 required has been raised.

FURTHER experiments with a boom as a defence at the entrance to the harbours, &c., are about to be made at Portsmouth. At a heavily-constructed barrier, a torpedo boat makes a dash at full speed with a view to ascertaining if the craft can get safely over. A specially-prepared boom has been completed at Portsmouth for the purpose.

STUDENTS of the Renaissance will be pleased to know that Messrs. Smith and Elder are about to begin the publication of a new and cheaper edition of the late John Addington Symond's works. The first volume will be "The Age of the Despots," and there are to be seven volumes in all. The same publishers will also have ready, shortly, a volume of collected essays by Mr. St. Loe Strachey, the new editor of the "Cornhill." It will appear under the title of "From Grave to Gay."

THE LATE LORD LEIGHTON'S WORK.

AN UNIQUE EXHIBITION.

AT Burlington House, the present exhibition consists solely of the work of the late Lord Leighton, a man devoted in thought and word to the service of the Royal Academy. On the whole Lord Leighton's influence on the Academy was for good. He knew a great deal of men and pictures, and while he had a marked preference for one kind of painting, he was able to admire many different ideals and qualities of Art. Indeed, his catholicity of appreciation affected his own work, and not altogether advantageously. He weakened his idea by eclecticism, and much of his painting wins from many Artists only a somewhat cold admiration. It is not so with his sketches, with a few portraits, smaller canvases, and one or two larger works carried out in a spirit of unusual frankness and bravery. When we look at these we cannot help feeling that Leighton was a man of fine taste and wonderful gifts who somehow never learnt to do justice to his splendid powers. But while we admit this comparative failure, we should remember his surroundings, the late Art of England, the Academy of the sixties, and the public taste and opinion of some years ago. It was against the England of those days that pre-Raphaelites protested, and we must remember that they were not the only men who held themselves above anecdotic painting and other cheap views of Art. Leighton and Mr. Watts were amongst a select few who took a high view of painting, as something capable of expressing beauty, and not only fit to bring fame and money by allying itself to literary emotions and popular

IDEALS OF ILLUSTRATION.

Could Leighton have combined the fine suggestion of colour in his oil sketches with the expressive action of his black-and-white drawings he would have done ample justice to his Artistic ideal. As it was, he rarely, if ever, treated the details, drapery, or heads of his large pictures with the breadth and "go" of drawings such as the "Study for the Wise and Foolish Virgins" (221), or "Two Studies of Heads" (224). He has perhaps never equalled in his pictures the happy colouring, the limpid unity of the sketches "On the Nile" (116), "Captive Andromache" (115), "St. Mark's, Venice," and ever so many other charming instances. Leighton seems to us in this exhibition to have thrown away his talents and his opportunities in the pursuit of a hard, cold revival of certain old masters. Everyone, it may be said, has more or less co-operated of late in reviving the traditions of old mastery. But Leighton was almost alone in the kind of Art that he chose to cultivate. His taste inclined to Raphael, and yet perhaps Raphael was scarcely the man to draw out and foster Leighton's

NATURAL GIFTS AND POWERS.

He might have been many things, but scarcely what he most wished to be, a composer by line and the creator of large Raphaelesque designs. For instance, he might have been a landscape painter of classic grace and delicacy. He might have been a portrait painter with a gift of something at once quaint and dignified in his style. At any rate, whatever line he had chosen, he might have been an exquisite colourist if he had not sacrificed breadth to false finish, and freshness to smoothness and a hard definition. But when one criticises Leighton's work one must admit that he towered above most of the Artists of his day, at least in England, and that in international exhibitions his work appeared to most advantage because there one saw best his "Captive Andromache," as examples of his success in carrying out important canvases according to

HIS OWN IDEAL OF FINISH.

And yet we should be forced to admit that the sketch for "Captive Andromache" has more unity of tone and a more penetrating charm of colour than the larger picture in the Manchester City Art Gallery. But indeed it would be difficult to surpass Leighton as a sketcher, whether of landscape from nature or of figure-subjects intended to be afterwards executed on a larger scale. One may feel admiration for Leighton's catholic taste in Art, for his industry, for his sense of dignified composition, and yet one cannot help feeling sorrow that he never rose quite to the level suggested in some of his sketches in oil and black-and-white. In these his drapery looks alive and fluttering, his figures full of action, and his colour sparkling and exquisite, whereas in his pictures the drapery too often looks like tinted plaster, the figures like wax models, and the colour an academic tinting that lacks the unity of aerial truth. From his pictures one turns to his sculptures without feeling that one regrets in any way the loss of colour and environment. Indeed on this occasion, when one saw all his work set before one, choice seemed to lie between the sketches and drawings on one hand and the statues on the other. The "Athlete Struggling with a Python" appeared a much nobler work of Art, let us say, than "Jacob's Dream," or "And the Sea gave up its Dead which were in it." It is strange that Leighton should have done so well in sculpture, which was at that time in even a worse condition than painting in England. It is possible, however, that in this medium Leighton felt himself freer than in painting, and less under the eye of public opinion.

AMONGST THE PORTRAITS

and studies of heads in oil one may see some of Leighton's best, at least his most interesting work. Is there not something quaintly charming as well as powerful about "Miss May Sartoris (Mrs. H. Gordon)" that recalls the finer romantic work of France rather than the merely academical conventions common to all countries? The face is solidly painted, and as finely modelled as anything that Leighton ever painted. But it stands by no means alone, and we may mention with it "Sir Richard Francis Burton," "John Martineau, Esq.," "Miss Laing (Lady Neask)," and, better perhaps than all, "A Study," belonging to Mr. Val Prinsep. This small head is magnificently handled, with a freedom and force of touch which would do credit to any master. Since Leighton could model with this fine directness and vigour, one feels astonished that he should ever have submitted to a rule of style which led to a smooth and easy kind of finish, destructive of emotion and subtlety. At times, however, even in his large canvases with a decorative aim, Leighton, if he handled paint without emotion, at least attained a real beauty of composition and a certain quality of colouring. Perhaps we might single out "Flaming June," "Hercules Wrestling with Death for the Body of Alcestis," "Cymon and Iphigenia," "Actæa, the Nymph of the Shore," "The Bath of Psyche," "Clytie," and



TRINITY COLLEGE, OXFORD. T. G. JACKSON, R.A., ARCHITECT. FROM THE ORIGINAL DRAWING.

THE block of old houses in St. Andrew Street, Plymouth, which so suddenly collapsed a few days ago, is being speedily removed. With considerable alacrity the borough officials sent a gang of pick and shovel men to the spot, and, having boarded over the street to stop vehicular traffic, the work of removing the *débris* was commenced.

BERWICK TOWN COUNCIL has under consideration the altering of Berwick Bridge, or providing a new footbridge from Berwick to Tweedmouth. Messrs. Sandeman and Moncrieff, of Newcastle, the engineers, considered the making a one-sided footpath on the old bridge disadvantageous, and an overhead bridge so ugly that they would not engineer it. The committee is now to consider a cheaper plan than £6,000.

Bricks and Mortar.

EFFINGHAM HOUSE, ARUNDEL STREET,
January 13th, 1897.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

OPERATIONS now in progress for the extension of the Edinburgh Municipal Buildings will obliterate Writers' Court, associated with which are not a few traditions of the olden time. The court took its name from the Society of the Writers to the Signet, who established their headquarters in it in the end of the seventeenth century, and continued there until they removed to their present palatial halls in Parliament Square in the early half of this century. The close, however, was in existence before the writers became the dominant proprietors in it and changed its name—a not unusual custom in those days. Situated on the west side of the Royal Exchange, Writers' Court was a short *cul de sac*, into which the sun rarely penetrated. Blocking up the end of it was a tall tenement, in which was a famous old Edinburgh hostelry—the "Star and Garter" tavern—kept by a man named Cleriheugh; on the east side was a tenement, in which was the Signet Office; and on the west side is the old Masonic Hall of St. James' Lodge. The end tenement, which has just been entirely demolished, is estimated by those who took it down to have been about three hundred years old, and the old Masonic Hall on the west side, is supposed to be of a more ancient date.

MR. EDWARD FALKENER, Architect and Archæologist, died at his house, St. Clears, Carmarthen, on December 17th, in his 83rd year. He gained the gold medal for Architecture at the Royal Academy in 1839. He travelled in Europe and the East for seven years, and was a most indefatigable student. In the spring of 1847, he had at his own expense a house excavated at Pompeii, called the house of Marcus Lucretius, in which all the loose articles were left where found. On his return to London he engaged in private practice, but the principal part of his time was devoted to publications on classical antiquities and to drawings of classical restorations, many of the latter being exhibited at the Royal Academy. He edited the Classical Museum, and contributed many papers to it. He published, in 1854, a pamphlet entitled "A Description of some Important Theatres and other Remains in Crete," in which was an account of the acoustic vases found in one of the theatres; and published "Dædalus, on Greek Sculpture," in 1860. In 1861 he issued a pamphlet on "The Hypæthron of Greek Temples"; in 1862, "Ephesus and the Temple of Diana"; and lately, "Games, Ancient and Oriental," and he was preparing a book on Greek houses until his last illness. Some of his sketches were used by J. Fergusson in his "History of Architecture." Shortly after the publication of his first three books he gave up practice and retired to South Wales. He was a member of the Academy of Bologna, of the Archæological Institutes of Rome and Berlin, a Knight of the Dannebrog, and J.P. for Carmarthenshire. He was this year made an Hon. Fellow of the Royal Institute of British Architects.

IT is to be hoped that the huge blocks of artizans' dwellings with which we are familiar in some parts of London will not be the "model" buildings of the twentieth century. They are abominably ugly, and, in spite of figures as to the death-rate of the residents, it is difficult to believe they are healthy. Greater facilities are required for conveying artizans to the suburbs, and this might be done by adopting electric traction for our tramways, the carrying power of which would thus be trebled.

VERY opportune is the report that Mr. Moore, the hon. surveyor to the City Churches Preservation Society, has presented in reference to the threatened Church of St. Mildred, Bread Street. He points out the beauties of the Church, mentions that the edifice practically remains in the state in which it was left by Wren, and declares that there is no earthly reason why so characteristic a specimen of an Augustan period in Church building should not be preserved. All who know the Church will cordially re-echo his closing words: "We have here, without going into matters of sentiment, a thing of intrinsic value, which no man with a cultured perception would think of touching with a destroying hand."

THE new offices of the Commission of Sewers facing Basinghall Street are not in accord with the principal Architectural features of that thoroughfare. The reason for this departure is not far to seek, as the Commission, under an injunction, unsuccessfully resisted by that body, has been unable to complete the original plans of the building. The question of ancient lights, which was raised by the opposite tenants, has proved fatal to the intention of the Commission to erect a handsome structure facing the street. Instead of having a compact structure rising in a line upward from the street, the new building will be erected in terraces, culminating with a steep roof at the rear. It is needless to say that much valuable space has been sacrificed in order to conform to the requirements of the injunction. The half-basement will be devoted to the clerks' strong-room, a room for the gas inspector, rooms for the sanitary inspectors, an office for the electrical engineer, and his testing-room. The ground floor will provide accommodation for the clerks. There is also a room for the accountant. The office for the medical officer will also be on this floor, and that for the sanitary clerk. The first floor will accommodate the rate collector's office, and a private room for the copying and general clerk in connection with the clerk's department. The principal entrance to the building will be from Basinghall Street, at the southern end, with staircase and a lift for passengers, giving access to each of the floors. A separate lift for books will also be provided. The offices now occupied by the engineer and his staff will be retained in their present position, and access will be given to them by a staircase and corridor leading from the new building.

AN account has just been published descriptive of the history of the old burial-ground in St. Pancras Road. Old St. Pancras Church of the twelfth century still survives in an excellent state of preservation, and another picturesque object prominent in the garden is a sun-dial erected as a memorial to the distinguished dead by the Baroness Burdett Coutts, at a cost of £3,000. It appears that in this cemetery rest the remains of many famous men, including those of Sir John Soane, who founded the museum in Lincoln's Inn Fields which bears his name; of John Flaxman, John Walker, author of "The Pronouncing Dictionary"; William Woollett, the landscape and historical engraver; and several members of the family of the Duke of Norfolk.

THE re-housing of the people who are turned out of their dwellings by the clearance of insanitary areas is a very onerous and expensive matter. The Hospital, in a recent issue, expresses an opinion that the burden might be greatly lightened by a proper development of the metropolitan tramway system, and urges the importance of this being undertaken without delay. The present plan of erecting block buildings is said to be defeating its own ends. They cannot be built as they should be in the central parts of the metropolis except at great expense, and consequent high rents, "and in the end this means that, instead of re-housing the people who have been displaced, the new buildings often only cater for a higher class of artizans—for people, in fact, who, but for the attraction of the flats, would go out into the suburbs."

So many public improvements are being effected in Nottingham just now, that it seems a good time, says a local contemporary, to take into account the subject of a new Town Hall. The present accommodation is very inadequate. In fact, it has been inadequate for many years, and had it not been for the long period of commercial depression through which the town has passed, steps would have been taken to provide a more suitable building before this. The present Council Chamber is large enough, no doubt, for the ordinary meetings of the Town Council, but it is of very little use indeed for public meetings or municipal functions. The whole building is, indeed, unsuited for every kind of public function, and in every respect it is a discredit to the town. We certainly do not wish to recommend expenditure which the town could not bear, but the erection of a new Town Hall will sooner or later be inevitable, and we question whether there will ever be a better or more suitable time than the present. The building operations now in progress will in a short time make Nottingham one of the most handsome towns in the whole country, and a new Town Hall would not only clear away an unsightly set of buildings which will soon be an eyesore, but it would add greatly to the attractiveness of the centre of the town, and harmonise with the other new buildings. It is doubtful, too, whether there will ever be a better time than the present for borrowing money. It can be obtained easily, and in almost any amount, at two and a half per cent., and it is difficult to believe that money will ever get any cheaper than that. In fact, there is just a chance that as years go on it may get dearer. It is not likely, therefore, that anything will be gained by further delay, while, as the trade of the town is now improving, and as the rateable value will have increased considerably before very long, the objection to incurring fresh expenditure, which was so very powerful a short time ago, is now disappearing. At any rate, the subject is now ripe for discussion both inside and outside the Council Chamber, and we venture to suggest, therefore, that it should be taken into consideration.

ON Christmas Eve, three-and-thirty years had elapsed since the death of Thackeray, so that there is an especial appropriateness in an article in the current issue of Scribner's Magazine on the "Haunts and the Homes" of the novelist. The article—which is from the pen and pencil of the veteran Artist, Mr. Eyre Crowe, A.R.A., himself a friend and companion of Thackeray's—brings to notice the fact that the only residence of the creator of "Vanity Fair" distinguished with the Society of Arts tablet is the house at No. 2, Palace Green, Kensington, which he built for himself. Here, it is true, he died, but he had lived there for less than two years, and the house is, in a smaller degree than any other in which he lived in London, linked with memories of the works which made him famous. His old residential chambers in Hare Court, with their suggestions of Pendennis and Fanny Bolton; No. 13, Great Coram Street, where he wrote many of his magazine articles, notably the one on Courvoisien; and 13, Young Street, Kensington, where "Vanity Fair" was penned—all call for at least as prominent a notice and as permanent an indication as the mansion in which the end came. The cost would be less than inconsiderable, and the rapidity with which historic London is passing away is quite sufficient to justify urgency in the distinction of relics of a great master of fiction.

IT is worth while recalling some of the more notable landslips which have occurred during the present century. The Rosenberg mountain behind the Rigi slipped down in 1806, burying the neighbouring villages with above 800 inhabitants. At Christmas, 1839, a strip of chalk cliff, three-quarters of a mile long, at Lyme Regis, in Dorsetshire, slid forward on to the beach, carrying with it cultivated fields, trees, and houses. A landslip at Naini Tal, in the Himalayas, in 1880, caused the loss of 200 lives; and, in the following year, over 150 persons were killed by a similar calamity in the Swiss Canton of Glarus. The most serious accident of the kind in England was the well-remembered Sandgate landslip in March, 1893, by which a large amount of property was destroyed, and many families were deprived of shelter and of all their belongings.

AT the historical Church adjoining Christ's Hospital, and known in the present day as Christ Church, Newgate Street, the Vicar, at a recent service, made appropriate allusion to the interesting anniversary they were celebrating. Exactly 350 years ago this edifice was re-opened after a cessation of service during the troublous times when Henry VIII. was dealing with monastic institutions. Two years earlier, in 1545, the King had handed over to the City of London this Church and other property belonging to the Grey Friars. A re-arrangement of parishes had also taken place, and the ecclesiastical district surrounding St. Nicholas (which even in those days was described as being in the "Flesh shambles") and that of St. Ewen, together with a portion of St. Sepulchre's parish, was taken to form the new parish of Christ Church. There is in the Grey Friars' records still extant an interesting entry which reads: "Item, the 3rd day of Januarii (1547) was sette opyn the churche agayen that was sometyme the Gray-freeres, and masse said at the auteres with dyvers prestes, and it was namyd Crystys Churche of the fundacion of Kynge Henry the VIIIth." In proof of the amity now existing between the old foundation and the Church authorities, the sermon was preached by the Rev. W. H. Branfoot, of Christ's Hospital.

IT is an earthquake that the American School at Athens has to thank for the opportunity of undertaking the excavations at Corinth, which have begun so successfully. Until 1857, modern Corinth stood on the site of the ancient city, but in that year it was shaken down by an earthquake. The new town was built about four miles north-east of the old site. The *débris* of the fallen city remains, and a village of a few hundred inhabitants still exists there. The ground is of little value, and excavators can purchase it outright. This would have been hardly possible when the town was standing.

AN exhibition of students' works was opened recently at Aston Manor Technical School. The work is uniformly good in quality and covers a wide range of subjects. It is also pleasing to notice that a large proportion of the work has a direct bearing on Art industries. The school would appear to be particularly strong in design. In this department of the work the students have combined Artistic ability and feeling with a careful regard for the requirements of the material in which the designs are proposed to be executed, while in some cases the designers have been also the workmen, and have produced articles such as etched metal finger plates, salvers, &c. There are also some admirably executed carved wood panels, a design based on the poppy, by Miss Agnes M. Thomas, being a clever piece of work, while another by Mr. W. G. Barber, based on the hazel, with a squirrel and nut-hatch introduced, is good both in treatment and execution. Of the other work executed by the students are some carefully etched door plates in copper, of quaint design, by Miss Allday. The exhibition includes modelled designs, modelling from the life and the antique, drawing from the antique in outline and chalk, designs for a variety of objects, painting from still life in oil and water-colour, painting from flowers, painting in monochrome, shading from models, and shading and outline from the cast. A competition in designs for a metal salver produced some good work, the prize being awarded to Miss M. S. Richmond. There are some good exhibits of painting from dead birds. Among the designs for stencilling, Mr. A. J. Darlaston submits a good set, which secured the prize in the local competitions. A set of designs based on the chrysanthemum, by Miss Alice Allday, are delicate in colouring and Artistic in treatment. This student also has some good work in painting in still life and from flowers. A good set of works from nature in flat washes applicable to decorative treatment, by Miss Richmond, is deserving of mention as being a step in the right direction, and a class of work which should be encouraged among the students.

A STAINED glass window has been placed in the side Chapel of Wantage Church, as a tribute to the memory of the late Dean of Lincoln, who for many years laboured as vicar of that town. It represents figures of three prelates—namely, St. Birinus, Bishop of Dorchester, who died A.D. 650; St. Wulstan, Bishop of Worcester, 1062; and St. Hugh, Bishop of Lincoln, 1186. These are the three dioceses in which the late Dean worked.

MANY of the historical landmarks of Old Westminster are disappearing, and of its better known thoroughfares probably few have suffered more severely in this respect than Great George Street. The rooms of the old National Portrait Gallery are closed, the Institution of Civil Engineers has built up for itself a fine pile of buildings, and the old houses, Nos. 12 and 14, for so long associated with the Surveyors' Institution, are in course of demolition, together with some even older premises in Little George Street adjoining. Outside the top windows of the latter there are some very curious wrought-iron balconies, besides many internal indications of antiquity.

A SYNDICATE has been formed in Aberdeen for the erection of a new theatre in the city, and a piece of ground on the east side of Rosemount Viaduct has been acquired from the Town Council. The site has 110 feet frontage, and 160 feet depth, and the yearly ground rent will be £88. It is proposed to build a theatre upon it of the most modern construction, and capable of accommodating over 2,000 persons. Tentative plans have already been prepared, and it is understood that the undertaking will be pushed on as rapidly as possible.

THE failure of the attempt to secure Holbein's great masterpiece of "The Incorporation of the Guild of Barbers with the Guild of Surgeons in the reign of Henry VIII." for the Guildhall Art Gallery will be heard of with general regret. The picture is one of the Artist's finest and most characteristic works, and it has long been thought that it ought to be placed where it could be more readily and conveniently seen than in the hall of the Barber-Surgeons' Company in Wood Street. It is paintsd on an oak panel, and the danger of fire arising from the nearness of the hall to the crowded warehouses of the Cheapside district led to a strong wish for its removal to a safer place. Barber-Surgeons' Hall, moreover, is badly lighted, and the picture is seen very imperfectly. An influential committee was accordingly formed, and the Company consented to dispose of their treasure for the not unreasonable sum of £15,000, which, it was hoped, would be speedily raised. The responses to the committee's appeal were, however, so meagre that the treasurer has been obliged to return the money to the subscribers.

LIVERPOOL'S new Post Office, in Victoria Street, is being pushed forward as rapidly as possible, although the completion of the building cannot be expected in a shorter period than some 18 months from the present time. Its style is Italian Renaissance, and its excellent proportions and imposing appearance, now that the scaffolding is partly removed, attract considerable attention. The Architect is Mr. Henry Tanner, of the Office of Works, and the contractors Messrs. Thornton and Sons. There will be no fewer than 18 emblematic figures, varying from about five to over seven feet in height, placed in conspicuous positions specially arranged for them, on and around the building. The whole of the sculpture work has been entrusted to Mr. Edward O. Griffith, in whose studio, in Kitchen Street, Liverpool, the figures can be seen. Ten of them, representing the British Colonies, will be placed on the Victoria Street elevation, where the front entrance to the Post Office will be situated. The figures, which are life-size, are carved out of Portland stone. In the centre of the ten statues will be placed four other colossal figures—two on each side of the entrance door—the pair to the right representing England and Scotland hand-in-hand, and the pair to the left Ireland and Wales. A pediment has also been carved out of the stone above the principal doorway, emblematic of electricity and engineering. The sculpture work in Sir Thomas Street and Stanley Street is as nearly as possible alike, being principally foliated work, capitals, panels, consoles, urns.

AT the last meeting of the Bournemouth Town Council the Surveyor's scheme for the construction of an undercliff drive and the preservation of the cliffs was considered. A resolution moved by the Mayor was carried by twelve votes to nine, approving of the scheme, and authorising it to be submitted for approval to Sir George Meyrick, the owner of the cliffs, and the directors of the South-Western Railway, to secure their co-operation in carrying it out. The cost is estimated at £60,000 for the whole sea-front, but only half can be proceeded with.

MR. WATTS'S "Wounded Heron," now exhibited at the New Gallery, is a picture with a past. It was exhibited at the Royal Academy sixty years ago—in the year of the Queen's accession—and there is perhaps no other picture by a painter now living of which a similar boast can be made. Moreover, this particular picture was sold by the Artist, and entirely lost sight of by him, when, after the lapse of many years, a dealer in the North wrote to him to say he had in his possession a picture that bore his signature, though perhaps it was not his work. Its price, he added, was about £5. Needless to say, Mr. Watts at once closed with the offer, and it was the greatest bargain in picture-buying that he ever made.

ONE of the best-known taverns in the metropolis—the "Elephant and Castle," at Newington—is threatened with demolition and removal. The demolition, however, is only preparatory to rebuilding, and as the removal amounts to a matter of but a few feet, the "Elephant," which gives its name to at least one railway station, is likely to remain, as it has been for more than a couple of centuries, a distinguishing landmark in South London. But the change which is in contemplation, though slight in itself, is of some consequence. Of the many cross-roads which meet at the "Elephant and Castle," one of the narrowest and one of the most crowded is the Walworth Road. Almost parallel with it runs Newington Butts, with its considerable width of roadway, and between them, and facing each of them, stands the tavern. What is proposed is to move the house a little to the westward, so as to admit of the widening of Walworth Road, and though this can only be done at the expense of a small strip of Newington Butts, the opinion of the local vestry is that exchange in such a case is certainly no robbery. The announcement that the trustees of the Newington Charity Estates, who are the owners of the "Elephant and Castle," were proposing to rebuild the property induced the local authorities to take prompt action.

THE "Elephant and Castle" has lost its glory since the days of the stage-coach, and is now principally known as a tram and 'bus centre, but its history is not altogether uninteresting. It stands upon what was once a waste piece of ground belonging to the Manor of Walworth, and what is now known as the Elephant and Castle Charity Estate. It was secured upon copyhold terms for the benefit of the poor of the parish of Newington as far back as 1658, and though there is reason to believe that the Elephant and Castle on the north and Short Street on the south do not represent the original boundaries, enough of the estate is left to bring in a revenue of nearly £2,000 per annum. There is evidence that in 1672 there was in existence upon the site of the present tavern an inn known as the "White Horse," from which the charity then took its name, and it was not until half a century later that, for some occult reason, both the inn and the charity adopted the sign of the "Elephant and Castle." It is said that in the process of digging—possibly at the archery butts which are once alleged to have existed at Newington—the bones of an elephant were discovered, and that on this account it was decided to discard the sign of the "White Horse." Another suggestion is that somebody connected with the Cutlers' Company may have had something to do with the estate and have induced the owners to adopt their sign—an elephant, with a tower or castle strapped to its back, in which are knights clad in armour. Whatever the explanation, the "White Horse" became the "Elephant and Castle" in the days when it was a low-built roadside inn, and it has been true to the name of its adoption ever since.

THE apartments which are being specially prepared for the Queen's use at the Excelsior Hotel Regina, at Cimiez, are in the west wing, and number some 150 rooms. The prevailing colours of the reception room are gold and white, the style being Empire. Carried out on Elizabethan lines, the rich red velvet is in pleasing harmony with the warm tints of the decorations.



EXETER CATHEDRAL. SCREEN TO CHAPEL OF ST. MARY MAGDALENE.

THE Chapel of St. Mary Magdalene, Exeter, which is situated on the north side of the Lady Chapel, was originally built by Bishop Marshall in the Norman style about 1194. It was, however, partially reconstructed by Bronescombe between the years 1257 and 1280, who, at the same time, restored the Chapel of St. Gabriel, which is opposite to it on the south side of the Lady Chapel. Further work was done by Quivil, who, in 1284, enlarged the east windows of both Chapels. The screen, of which we give an illustration, was added by Bishop Oldham, who also built eight others and enclosed the choir. The Chantry of Prior Sylkes (1508), in the north transept, is also credited to him. These screens were built between the years 1504 and 1519, and were the final touches bestowed to the Cathedral in the latest age of Gothic Architecture.

SOUTHEND hopes soon to extend its sea-front. Southchurch, which lies between Southend and Shoeburyness, will, if the sanction of the Local Government Board can be obtained, be merged into its more populous neighbour, and extensive pier improvements are already in progress. At the preliminary inquiry, conducted by Major-General C. Phipps-Carey, Mr. Charles Herbert Smith, counsel for the Southend Corporation, urged the approval of the scheme on the ground that it would increase the attractions of the place as a pleasure resort. The Town Clerk stated that the Corporation are expending over £20,000 on pier extensions, and that during the last four years there had been a profit made from the existing tolls of over £7,000. This sum had been employed in relief of rates.

THE death is announced of Mr. Alexander Milne Dunlop, a well-known land agent and surveyor. The deceased, who was senior Vice-President of the Surveyors' Institution, and acted as Surveyor to the Board of Trade, was head of the firm of Dunlop, Lightfoot, and Wallis, of Manchester and London. He acted as agent for the Ship Canal Company in the purchase of lands and settlement of compensation cases arising out of the construction of the canal, and was agent for many large estates.

ALTHOUGH it has been decided to build a new Royal yacht for the Queen, the plans have not been prepared, and it is pretty certain that the new vessel will not be ready for the naval review to be held in celebration of the longest reign. The "Victoria and Albert" is the oldest royal or imperial yacht in Europe, and although there is none that compare with her for grace and beauty of lines, she is hardly the yacht to represent in the present day the first navy in the world, as in magnificence, cost, and accommodation she is surpassed by the "Hohenzollern," the "Pole Star," and the "Standart." This is not to be wondered at when it is remembered that she was built as far back as 1855, when the then "Victoria and Albert" became the "Osborne," to be displaced twenty years later by the yacht that now bears that name. On several occasions her timbers have been patched up, but now that boilers and timbers are in a state of decay, it has been decided to build a new yacht.

AT the Dudley Gallery, the "Landscape Exhibition," now open, has one or two merits of a rather unusual sort. It is limited to the work of only six Artists, and is, therefore, of a convenient and agreeable size; it is pleasantly varied, and yet the pictures it includes are sufficiently in sympathy to give the collection as a whole an air of right relation, and contains nothing which is in the least unworthy of attention. The most attractive contributions are those of Mr. Leslie Thomson and Mr. J. S. Hill, both admirable observers of nature and skilful in technical device. Mr. Peppercorn is represented by several studies in low tones, quite characteristic of him. Mr. R. W. Allan's works are curious in their variety of manner, and in more than one instance are strongly reminiscent of certain of the great French landscapists. Mr. E. A. Waterlow's somewhat artificial method of interpreting out-of-door subjects assorts but little with the general tone of the show.

THERE is not much to record in the way of new movements in Art during the past twelve months. The rank and file of living Artists have, perhaps, occasion to congratulate themselves upon a slight improvement in the market for modern pictures; but the good times for which everyone has been hoping are still little more than a possibility. A few assiduous workers have had cause to rejoice over a stroke of luck, and an occasional millionaire has scattered some crumbs of comfort in a limited number of studios, but the general cloud of depression seems curiously disinclined to disperse. Meanwhile, prices for pictures by deceased masters have run higher than ever; no less than £11,025 was given in the summer for a portrait by Romney, and sums almost as disproportionate for other canvases of the same class. The only really hopeful sign is the increasing demand for English pictures abroad. The authorities of the Louvre paid a little while ago £3,000 for Lawrence's portrait of Mr. Angerstein, and works by Mr. J. H. Lorimer and Mr. G. W. Joy were acquired by the French and German Governments In America, too, British Artists are steadily making their way.

THE imitative nature of the Japanese has led to some queer mechanical productions. A lighthouse is now being erected at Kagoshima, which is to have, when completed, a height of 100 feet. The lighthouse in question will consist of an iron tower, which will carry at its summit an illuminating apparatus of the first order. The scaffolding is made entirely of ropes of braided straw. All these ropes are interlaced with one another, crossing in all directions to form a structure of great firmness. An inclined plane is used for the transport of materials. It is held firmly by ropes of braided straw. The construction, thus made, presents a very odd appearance.

AT Durham House, Withington, the death took place of Mr. Alderman G. Clay. Mr. Clay has been for many years a familiar figure in Manchester public life, and was the son of the late Mr. Thomas Clay, of that city, and, unlike many "Manchester men," was born in it. His father commenced life in the poor circumstances of a working stonemason; but by sheer pluck and industry rapidly rose to be one of the great master-builders of the city. He will be chiefly remembered as the contractor who took out the foundations of that magnificent building, the Manchester Town Hall, and who was afterwards engaged, in somewhat of an emergency, to take down the scaffolding. Mr. George Clay inherited from his father all his distinguishing traits.

THE German Emperor has designed and drawn the tower of the German Protestant Church in Jerusalem, which will be finished by the beginning of next year. The original plan of the Church was drawn in 1875 by the head of the Prussian official Architects, Professor Adler, and the cost was estimated at half a million marks. But the first design has been considerably altered, and the building will cost about 300,000 marks more. It will be built on the Muristan, which was given to the late Emperor William by the Sultan in the sixties, and was taken possession of on his behalf by the Emperor Frederick, then Crown Prince, who visited Jerusalem in 1869. The form of the building is similar to that adopted for Churches in Palestine and Syria by the Crusaders. They are all alike in being large and stone-built. The neighbouring hospital for female pilgrims will easily be converted into a large hospice for German Protestants, for whom that of the Order of St. John has long been insufficient. The oldest Protestant Church in Jerusalem is the English one, which was begun in 1842, and consecrated by the name of Christ Church in 1849.

WORKS in connection with the Royal Dublin Society's new theatre in Kildare Street are rapidly approaching completion, and it is expected that early in the month of April the contractors, Messrs. Bolton and Son, of Dublin and Rathmines, will be in a position to hand them over to the Society. The three or four months' strike in the building trade last year seriously interfered with their progress, but since its termination the greatest activity has been manifested. The outside of the building is of quadrilateral form, and there will be two entrances to the theatre. One for the public will be exactly in the place of the side door at the old portico, and the other, which leads from the main building of the Society's House, faces a grand staircase, to which the door first mentioned also opens, and by which the seats in both the lower part of the auditorium and the gallery will be approached. This staircase is placed in a lofty vestibule, having a glazed roof, and around are niches ready to receive statues.

THE townsmen of Peterborough do not profess to be antiquaries or Artists; but at least they should be acquainted with their own Cathedral, the ground it stands on, and the stones it is built of. And the local feeling appears to be strongly in support of the abused Dean and Chapter. At a recent meeting of the Restoration Committee the contractor declared that he would not risk the lives of his men in carrying out the scheme proposed by the Society of Antiquaries, and a vote of confidence was carried in favour of the original plan. To a certain extent there may be "wheels within wheels;" but, apart from all other questions, it is not the interest of the town in general, or the tradesmen in particular, to do anything which would check the flow of tourists in search of the picturesque. In spite of lying on two great railways, Peterborough is a sleepy little place, and its staple industry is the Cathedral.

IT is in contemplation to pull down the Victoria Bridge, which spans the St. Lawrence at Montreal. The bridge, which is of the tubular type, is to be replaced by one of more modern design, which will afford better facilities for the conveyance of traffic. The present structure was designed by Robert Stephenson, work being commenced upon it on May 25th, 1854, and it was opened by the Prince of Wales on August 25th, 1860. It is only about 60 yeards less than two miles in length, and the cost of its erection was £1,700,000.

ANTIQUARIAN discoveries of interest are frequently being made at Carlisle, which is fruitful in Roman remains. These now appear chiefly to consist of sepultural relics, and Chancellor Ferguson last week had submitted to him a vessel which goes to prove the correctness of his theory as to the locality of the chief Roman burial-ground at Carlisle, which he believes to have lain to the right and left of the London Road, from the top of Bochergate to the River Petteril. The "find" in question has been made at the top of Bochergate, a little to the south of the Red Lion Hotel, in some excavations for new buildings. It consists of an urn of plain red clay, containing the cremated bones of a child from four to six years old. The ground bottom of another vessel had served as a lid, but the neck being broken the lid had fallen inside. The urn also contained a small grotesque figure of a man, in an enormous head-dress like a Guardsman's busby, this is carved out of bone, and has been burnt. The urn is about seven inches in diameter at the maximum breadth, and three at its base, and it now stands about five inches high, but the upper part is broken and lost.

IN his description of the new portion of the Record Office, in Chancery Lane, Mr. Maxwell Lyte, the Deputy Keeper of the Public Records, says: "The rooms in the northern part of the new block have been fitted with steel presses and slate shelves for the reception of documents of different departments of State. The rooms in the southern part are for the use of the Deputy Keeper, the Secretary, and other members of the staff, who were formerly located in Rolls House. On the ground floor is a library of printed books for the use of officers of the Department. A room on the first floor, immediately over the gateway, will serve as a museum of documents of special beauty and interest, until the completion of another block of the Public Record Office. Two statues have been placed in niches over the gateway on the eastern side — that of Henry III., who founded the House of Converts on this site, and that of Edward III., who united the office of Keeper of the House of Converts with that of Keeper of the Rolls of Chancery."

A COMMENCEMENT has been made with the demolition of Mar Castle. According to Mr. A. M. Munro, in his book on "Old Landmarks of Aberdeen," the tradition attached to the house is that it was built by the Earl of Mar for his town lodging. The "Castle," adds Mr. Munro, which stood within the port, has lost much of its original character by repairs executed upon it about half a century ago, when the lower floor was completely modernised, and what remained of the corbelled mouldings originally adorning it has been completely hid by successive coats of harling. It is

one of the many houses in which Samuel Rutherford is said to have lived when he was banished to Aberdeen in 1636. In the title-deeds the property is described as "these two tenements of foreland and tenement of inland, with the close garden, summer-house and office-houses"; and there are citizens who can still remember the old-fashioned summer-house with the garden which stretched away to the Common Highgate, now the Porthill. At the back all this is changed, however, and almost every foot of the garden is now occupied by houses scattered about in picturesque confusion.

THE old and mutilated cross standing in the Churchyard of Timberscombe, Somerset, under the shadow of the great yew—both relics of long bygone times—has been restored. The cross, like most other Somersetshire crosses, was broken, and the upper part lost. The old and rotten base has been removed, and a new one of grey Dartmoor granite put in its place. Upon this stands another square block, part of the original structure, from which rises the octagonal shaft. Only about half of this was standing, the upper part being broken off, and the shaft with its head has now been completed, the design being after what was probably the original form. The upper part bears the figure of our Lord upon the cross, with a gabled canopy above, the whole structure being 10 ft. 3 in. in height.

A BRIDGE of telegraph wires crosses the Jhelum (one of the rivers of the Punjab), at Kohala. It was erected rather more than a year ago by Major Aylmer, on the site of the bridge that had been destroyed by the floods, and is on the Murree and Baramula route to Cashmere. Lieutenant-Colonel Gallrein, during one of his expeditions in the Soudan, encountered with his troops the river Kokoro, which runs for long distances between banks some 36 feet high, and descending almost perpendicularly to the stream. Lieutenant Willis, in this fix, borrowed from the telegraph department of the column several coils of stout wire which were made into ropes, and fastened to enormous beams on each side of the river. Across these were placed blocks of wood attached to each other, and among cheers and fears the column crossed the stream successfully. Near Freyburg, in Switerland, is a wire bridge connecting two mountains. The depth from this bridge to the chasm beneath is about 180 feet, and the distance from one side to another is over 900 feet. The way in which this bridge has been made is one of the wonders of the century, holes have been bored in solid rocks and the wires on which it is suspended pushed through. Over 1,000 wires have been twisted together to form the bridge.

ON Christmas morning, when the Rev. Bernard M'Cartan, parish priest, Hannahstown, visited Derryaghy Catholic Church, in his parish, he found about a dozen windows smashed. Other signs showed a carefully planned attempt to wreck the sacred building.

THE tower of Hinderclay Church, with its fine peal of bells, has for some time been in a critical condition. It was lately inspected by Mr. W. Fawcett, F.S.A., of Cambridge, and by his advice, and at the urgent entreaty of the parishioners, the work of restoration was immediately undertaken. The parapet has been taken down and stored away, and by the end of another week it is expected that temporary shoring will have been erected. In the spring it will be under-pinned and a foundation of concrete and gravel inserted, and, should the money be forthcoming, the parapet will be re-erected. The cost will be about £200.

IN connection with the excavations consequent on the erection of a new post-office at the junction of High Street and Scott Street, Perth, a curious discovery has been made. The earth removed to make room for the foundation of the post-office was carted to the outskirts of the city and formed into a "bing," and, while several children were at play on the bing, one of them found in a box over 30 golden pieces of various countries — Spanish, Portuguese, and French, while one was a British coin of the time of Henry VIII. On several of the coins are four *fleur-de-lis* in the shape of a cross, and on the obverse is a crusader's shield surmounted by an imperial crown. The inscription round the margin shows, so far as could be made out—"Vincit X.P.S. Rannent, X.P.S. Imperat."

Professional Items.

ABERDEEN.—The plans of the following new buildings have been sanctioned:—Three dwelling-houses on the north side of Broomhill Road, for Mr. James Duncan, builder, per Mr. Alexander Wallace, builder; two dwelling-houses on the south side of Lilybank Place, for Mr. Joseph Shirras, builder; two cottages on the south-east side of Elmfield Avenue, for Mr. Robert Mitchell, builder (further amended plan); dwelling-house on the north side of Church Street (Woodside), for Mr. George Mackie, surveyor; dwelling-house on the west side of Holland Street, for Messrs. D. Mowatt and Sons, chilled iron and sand makers; alterations and additions at No. 9, Diamond Street, for Mr. Charles Campbell, post-horse master, per Mr. George Bruce, builder; dwelling-house on the south side of Castle Terrace, for Mr. A. Edwards, Customs messenger, per Mr. A. Winchester, Architect (amended plan); two dwelling-houses on the south side of Rubislaw Den (South), for Mr. Charles A. Boddie, insurance agent; alterations at No. 325, George Street, for Mr. J. H. Stephen, engraver; wash-house and drying-loft in connection with Beechgrove House, for Mr. John Fyfe, granite merchant; three dwelling-houses on the east side of Holburn Street, for Mr. Robert Taylor Adam, house proprietor, per Mr. Duncan Hodge, Architect; eight dwelling-houses on the west side of Gray Street, for Messrs. John Gammie and Co., builders; three dwelling-houses on the north-west side of Menzies Road, for Mr. John Rust, Architect; six dwelling-houses on the east side of Grosvenor Place, for Messrs. Ellis and Wilson, Architects.

ABERDOUR.—A new public school, erected by the School Board of Aberdour, was formally opened last week. The site is opposite the Fleming Hall, and the principal approach to the new buildings is from the square of the village. Entering by the main door, which is at the west, the lobby, to the right and left of which there are teachers' retiring rooms, is reached, and it leads into the central hall, measuring 40 feet by 27 feet by 24 feet high. It is lined with bird's-eye maple, and is well lighted. From the hall the various class-rooms are entered, also cloak and retiring rooms. Outside shelter shades have been provided for boys and girls. The cost of the buildings is about £3,500, and they are built from plans supplied by Mr. Watt, Aberdeen.

ALSAGER, CHESHIRE.—The new Church of St. Mary Magdalen, at Alsager, was opened on the 8th inst. The Church will seat at present 450, but when the full scheme is carried out there will be accommodation for 700 people. The cost of the present portion will exceed £8,000, and an additional £1,500 will be required for the completion of the tower and spire. The Church is built of Alton stone throughout, the roofs and seats and dadoes being of pitch pine, and the chancel seats altar-rail, and altar-table being of wainscot oak. The Architects were Messrs. Austin and Paley, of Lancaster, and the builder Mr. John Fielding, of Alton.

BARRY.—The contract for the construction of a new dry dock for the Barry Graving Dock Company, to be made on land adjoining the company's works at Barry Dock, has been entrusted to Mr. Wills, of the firm of Messrs. Price and Wills, who are at the present time carrying out the new East Dock at Barry. It is stated that the new dock, which will be situated on the opposite side of the workshops, will cost about £20,000. Mr. Wills executed a portion of the Manchester Ship Canal, and the firm are at the present time engaged in constructing new railway works on Barry Island, new harbour works at Fraserburgh, in Scotland, as well as a 19-mile line of railway from Lincoln to Tuxford, forming part of the East Coast Railway. The work in connection with the new dry dock is to be commenced forthwith.

BARTON-ON-HUMBER.—The well-known old Church of St. Peter's, Barton-on-Humber, the tower of which was built about the time of the Norman invasion, and is well known to antiquarians, is about to be restored. The work is to be put in hand at once, under the superintendence of Mr. C. Hodgson Fowler, of Durham. The scheme comprises the building of an organ chamber on the north side, a new clergy vestry, restoration of the tower, renovation of the interior walls, and the purchase of a new organ. It is further proposed to re-hang the bells, and to add two new ones to make up a peal of eight. The cost is put down at £2,000.

BELFAST.—The first of the Hugh Henry Boyd's endowment schools, Belfast, has just been opened. It has been erected in Mayo Street, Shankill Road, at a cost of over £2,000, and consists of a suite of rooms admirably suited for educational purposes. The trustees have spared no pains in the effort to carry out the intentions of the late Mr. Boyd, and they are to be congratulated upon the success of this the first school-building under the scheme. In point of structure and arrangement it will rank among the best educational establishments in the city.

CANTERBURY.—The Canterbury Town Council has resolved to apply to the Local Government Board for sanction to expend a sum of £23,000 in laying down municipal electrical works. Mr. Robert Hammond, by whom the scheme was prepared, mentioned that out of 115 electric light undertakings in England, 66 are in the hands of municipal authorities, the capital invested amounting to about three millions sterling.

CHELTENHAM.—At a recent meeting of the Cheltenham Town Council the Town Improvement Committee made a report on the proposed kursaal, &c., for the town. The committee stated that they engaged the services of the Architect, Mr. E. R. Robson, who had had several interviews with the committee, and that he had prepared plans for the erection of a kursaal and baths at the south end of the Winter Garden, and for the conversion of the existing Winter Garden into municipal offices and a winter garden. Mr. Robson estimated the expenditure to be as follows: viz. £50,000 if all the work was done at once, and £53,700 if done in sections. The committee was of opinion that the proposals and arrangements, as shown in the plans and drawing submitted by Mr. Robson, were admirably adapted for the purposes for which they were intended, that the buildings would be a credit and an ornament to the town, and that it was the most efficient and useful way in which the existing lands and buildings could be utilised. The committee therefore recommended that tenders for the erection of the buildings be advertised for. It was, however, decided to adjourn the meeting to a special meeting of the Council.

COALVILLE.—The new Conservative Club, Coalville, the foundation stone of which has just been laid, is situated almost opposite the railway station, and when completed will be an attractive and substantial-looking building. The Architect is Mr. W. T. Hampton, and the contractors Messrs. W. Beckworth, of Whitwick.

COCKSHUTT.—On Sunday week three stained glass windows, recently placed in the Cockshutt Parish Church, in memory of the late Charles B. Robinson, Frankton Grange, were dedicated. The windows were designed by Kemp.

DARLINGTON.—The Church recently built in Bedford Street, Darlington, is of wood, with a corrugated iron roof, and was constructed by Messrs. Boulton and Paul, Rose Lane Works, Norwich. It is a very substantial structure. The contract was for £750, but it is estimated that the building, which will accommodate 300 persons, will eventually cost £900.

DEANSTON.—A new school, which has been in process of erection for nearly a year, was opened at Deanston last week. The school is built of light-coloured stone, with highly ornamental gables artistically decorated with dark brown painted wood. The roof is ornamented with fancy red tiles, and in the centre there is a large ventilator, surmounted by a gilded weather vane. The infant department is separated from the higher class rooms by a through passage. The infant school has accommodation for 62 scholars. There are three higher-class rooms, separated by glass sliding partitions, and the place can be converted into one large hall at will. The entire school has accommodation for 190 scholars, and there are extensive lavatories. The Architect was Mr. John

Murray, Kirkcaldy, and the contractors were—for mason work, Messrs. A. Ferguson and Sons, Doune; joiner work, Messrs. Reid and Hutchison, Doune; plumber work, Mr. John Kerr, Dunblane; slater work, Mr. Balfour, Doune; painting, Mr. G. A. Taylor, Lochgelly; plastering, Mr. A. Williamson, Largo; fencing, Mr. R. Campbell, Doune.

DUNDEE.—Plans and sections of proposed new buildings, &c., in Dundee, have been lodged with Mr. William Mackison, F.R.I.B.A., &c., Burgh Engineer, to be submitted to a meeting of the Works Committee of the Town Council on Monday, as follows:—(1) Ferry Road and Grove Street, W.C.'s and ashpits, &c., for the Scottish House Property Investment Co., Limited; (2) Forfar Road, byre, stable, &c., for John G. Sibbald; (3) Forfar Road, villa for James Foggie and Son.

GARDENSTOWN, N.B.—The new police station at Gardenstown is almost completed, and arrangements have been made for its occupation on the 24th inst. It is built with freestone corners, and the front is finished with blue stone from Tarlair. The contractors for the work were:—Mason, Mr. R. Morrison, Macduff; carpenter, Mr. John Gordon, Macduff; plasterer, Mr. Gibson, Banff; slater, Mr. Liddel, Macduff; plumber, Mr. A. Strachan, Banff; and painter, Mr. Forbes Watt, Banff. The Architect was Mr. M'William, Portsoy.

HALESOWEN.—At the last meeting of the Halesowen District Council, an hour was occupied in considering tenders for the construction of sewerage works in the districts of Halesowen, Cradley, the Lye, and other districts. It was eventually decided to accept the tender of Mr. J. Mackay, of Hereford, for £6,348, for the construction of works at Halesowen, Hasbury, and Hawne, and of Messrs. Cruwys and Holrough, of Gloucester, for £10,960, for the carrying out of works at Cradley, Lye, and Wollescote.

ILKLEY.—At a meeting of the Ilkley District Council, last week, eight ratepayers attended as a deputation with regard to the proposed purchase of a site for the Town Hall at a cost of £6,270, and urged that the quantity of land acquired was too much and the price too high; that a Town Hall was not needed; that a less costly building would provide the Council with suitable offices; and that the present site should be sold.

INVERURIE.—The fever hospital which has been erected at Inverurie, is now ready for occupation, and will in the course of a few days be brought into use. The hospital has been built by the Garioch District Committee and Inverurie Town Council, and it is intended to serve the whole of the district, including the burgh of Inverurie. The place where the hospital is built is about 300 yards from High Street, from which an approach road has been made. The situation is an open one, and a considerable distance from any other house. The hospital, of which Messrs. Jenkins and Marr, Aberdeen, were the Architects, consists of a ground floor and attics, and is divided into two entirely separate houses, entered by different doors. The smaller house includes two wards, which can be thrown into one, and which are at present fitted with three beds each. The other part of the building is by far the larger, and occupies the whole of the west or cross wing as well as part of the main structure. The west wing includes a large and small ward, which can be thrown together by opening the folding doors. In the large ward there are at present seven beds, while in the small one there are three beds. Additional beds, however, could be put in in case of necessity. In the main structure are the kitchen, matron's room, bathroom, etc., and in the attics are several bedrooms. The cost of the hospital has been about £2,000. The contractors were;—Mason—Mr. Wm. Lauder, Inverurie; carpenter—Mr. James Milne, Inverurie; plasterer—Mr. Robert Moir, Inverurie; slater—Mr. S. Christie, jun., Dyce; and plumber—Messrs. Laing and Sons, Inverurie.

KIRKLEY.—On Thursday, foundation stones were laid of a new mission hall and schoolroom to be built in connection with the Kirkley Friends' Adult School, on St. George's Road, Upper Kirkley, Mr. J. Gill being the contractor.

LERWICK.—At a recent meeting of the Burgh Commissioners of Lerwick, plans of a proposed new water scheme, which had been prepared by Messrs. C. and A. Leslie and Reid, Edinburgh, were submitted. The present water supply has been found insufficient for the requirements of the town, and, besides the deficiency of the supply, great difficulty has been found in getting off the peaty deposits in the loch. The new scheme provides for the erection of three new filters and two large settling ponds, also the laying down of an additional six-inch main and other necessary works. It is also suggested that the old pipes should be scraped, which would further increase the supply of water. The cost of the whole works was estimated at nearly £4,000. It was resolved to approve of the plans with some modifications, and steps were taken with the view of having the work carried out in the course of the present year.

LIVERPOOL.—At last week's meeting of the Mersey Docks and Harbour Board, the retirement of Mr. G. F. Lyster, Engineer-in-Chief to the Board, was announced. Mr. Lyster, who has been recommended a retiring allowance of £2,500 per annum, has occupied the position of Engineer to the Dock Board for 35 years, and during that period he has virtually transformed the entire dock system of Liverpool, the vast works which he has successfully carried out having, it is estimated, cost about nineteen millions sterling. For some years Mr. Anthony George Lyster has acted as assistant to his father, and the Works Committee now recommend him for the post of Engineer-in-Chief at a salary of £3,500 per annum. Mr. W. H. Le Mesurier has been recommended for the position of Principal Assistant Engineer, his salary being stated at £1,500 a year. The appointments, as well as the matter of Mr. Lyster's retiring allowance, will come up for confirmation at the next meeting of the Board.

LOWESTOFT.—The voluntary school accommodation at Carlton Colville, near Lowestoft, has been considerably enlarged, and last week the building recently erected was formally opened. The Architect is Mr. F. W. Richards, of Lowestoft, under whose direction a substantial school has, at a cost of £1,110, been built. Mr. W. J. Scarle carried out the brick, and Mr. A. G. Beckett the wood work. The interior of the building is 98 feet by 22 feet, divided by a sliding partition, both girls and boys being accommodated. It is constructed to hold 200 children, but 250 can be received, and there is ample room to extend in the event of future requirements.

NEWMILNS.—A new Town Hall at Newmilns, Ayrshire, was formally opened last week. The hall, a lithographic plate of which we published in our issue of August 26th last, is erected in memory of the late Mr. Hugh Morton, and is named the "Morton Hall." The building, which is of stone, is in the Scottish baronial style, the Architect being Mr. Arthur Harrison, of Birmingham. The hall will accommodate 1,000 persons, and is provided with rooms for the Town Commissioners.

NORTON FITZWARREN.—The Bishop of Bath and Wells has opened a village club and hall at Norton Fitzwarren, which have been erected and presented for the use of the inhabitants of the village by Mr. Wilfred G. Marshall, of Norton Manor. The buildings are of a commodious character, and include a large hall for concerts, &c., (which has comfortable seating accommodation for 250), reading room, smoking room, recreation room, and library. The building is of brick, with dressings of Ham Hill stone, and is situated at the junction of the road to Milverton with that leading to the railway station.

NUNEATON.—At last week's meeting of the Nuneaton Urban District Council, the appointment of a surveyor was considered. The district includes seven parishes, and there were six applications for the position, the salaries asked varying from £50 per annum to £80. The Council unanimously elected Mr. Arthur Moreton, of Nuneaton, at a salary of £50 per annum.

OMAGH.—A meeting of the executive committee for the new Infirmary for Omagh has been held in the Boardroom of the Tyrone Infirmary, Omagh, to consider the advisability of proceeding with the work of the new Infirmary owing to the contractor, Mr. Colhoun, having refused to take the contract on the original terms. Mr. Owen, Architect, was in attendance, and submitted reduced plans, which were considered by the committee, who thought it advisable to adhere to the original plans, as the alteration would produce a very inferior building at a saving of about £1,000 or £1,500. The committee decided to increase Mr. Colhoun's contract by £234, which would raise it to a total of £8,000, added to which the Architect's fees and heating would bring the total to about £10,000. The secretary stated that there would be a deficit of about £4,000, which, it was to be hoped, would be made up by generous subscriptions throughout the county. On the motion of Colonel Buchanan, seconded by Mr. Herdman, a resolution to this effect was passed, and it was understood that Mr. Owen, the Architect, should have an interview with Mr. Colhoun, the contractor, when the contract would be definitely signed.

SMETHWICK.—Mr. Charles Barnard, proprietor of the Theatre Royal, Aston, proposes to erect a theatre in Rolfe Street, Smethwick, at a cost of £8,000. The building will cover a site of 1,500 square yards, and afford sitting accommodation for 2,300 persons. The principal entrances will be in Rolfe Street, the galleries being approached from a side road. Each part of the house is to be provided with two separate exits; the gallery is to have an outside iron escape staircase on either side the building, which may be used in case of panic. In all, therefore, there will be four staircases from the gallery. The stage will be 63 ft. by 44 ft., and 50 ft. high to the gridiron, and will be on the most modern principles. The whole structure is to be made as nearly fireproof as possible, and will be lighted by electricity. The front elevation is in the classic style, and will be executed in Ruabon bricks, with stone dressings. An ornamental iron verandah will extend over the footpath the whole length of the building. The internal decorations will be of an ornate character. Messrs. Owen and Ward, of Birmingham, are the Architects, and Messrs. J. Harley and Son, of Smethwick, the contractors.

ST. MICHAEL'S.—The foundation stone of the new boys' school for St. Michael's parish, was laid on the 7th inst. The building, which will accommodate 168 boys, is to be of a plain description, and is on a high and commanding site at the crest of the hill, and adjoining the wall of the Fort. It takes in a peculiar piece of Architecture, which is thought to be a huntsman's arbour, used in the old days of the chase. The cost of the site was £360, and the contract was let for £1,275, which, with extras, exclusive of the site, amounted to about £1,400. In the new school a place is to be found for a capital bust of the late Mr. B. Wilson, who was at one time a master of St. Michael's Schools, and it is a capital specimen of the work of Mr. James Havard Thomas, who was at one time a pupil of St. Michael's, and is well-known as the sculptor of the Morley and Burke statues in Bristol.

WEST BROMWICH.—At a recent meeting of the West Bromwich Town Council a long discussion took place with reference to the proposal to pull down Meyrick House and erect new buildings to accommodate the police at Hill Top, and also to provide a reading-room, at a total cost of £2,000. It was explained that the estimated cost of altering Meyrick House was £750, but when tenders were invited for the work the lowest tender was nearly £1,200. Since then further subsidences had taken place, and it was thought best to have a new building on a site nearer the road, which would not be likely to give way. It was mentioned that the old house would fetch £200, so that the cost would only be £1,800. It was also explained that the Parks Committee had consulted a mining engineer, who assured them they would be perfectly safe in building on the site proposed. The recommendation of the committee was ultimately adopted.

CHESTER.—The three commodious new class rooms, which have been added to the British Schools in Victoria Road, Chester, have just been opened. The schools were founded 30 years ago, in 1867. They commenced with 130 scholars in

two departments. Additional class rooms for infants were provided in 1873 and 1877, and others for boys and girls in 1881. The Education Department, some years ago, required new cloak rooms, &c., but neither land nor money were then available for carrying out their suggestions. Some time ago, however, the London and North-Western Railway Company claimed a portion of the playground for widening their Saltney line; and on being released from the liability to purchase the whole of the school premises, they provided a plot of ground on the west of the schools, and allowed the managers £750 to rebuild the infant class rooms and provide the required cloak rooms, besides replacing the old crumbling wall by the splendid new wall in front of the schools. The work has been efficiently executed by the contractor, Mr. Thos. Mayers, of Rowton, from the designs of Messrs. T. M. Lockwood and Sons. Another class room being needed for the large boys school, it has been built, at a moderate cost, over one of the new infant rooms.

DONCASTER.—A portion of the Great Northern Schools, near the St. James's sidings, having been destroyed by fire, the Company has erected a new school for girls on the old site, and a school for boys at the junction of Green Dyke Lane. The schools have cost £4,500, and the boys' school has accommodation for 252, and the girls' for 310. Messrs. Brundell, Simmons, and Brundell were the Architects, and the contractors Messrs. Arnold and Son, of Doncaster. A clock-tower has been erected on the St. James's School, at the cost of the Great Northern directors, and cost £90, and the clock, which has been supplied by Potts, of Leeds, and cost £90, has been placed in the tower at the cost of the workmen, in memory of the late Mr. J. Shotton, manager of the works. The clock was handed over to the school by Mr. Geeson, and started by Mr. Small, on behalf of the subscribers.

GLASGOW.—The ceremony of laying the memorial stone of the imposing range of building erected by the Lancashire Insurance Company, in Glasgow, was performed by Sir Donald Matheson last week. The structure, which forms an important feature to the Architecture of the city, has a frontage of 60 feet 9 inches to West George Street, and of 108 feet 9 inches to Renfield Street. It is five stories in height, with a basement and attic floor, and on the Renfield Street frontage there is an entresol. The Company's offices will occupy the ground floor in West George Street, with a fine central portico for the entrance, surmounted by the arms of the Company. The other portions of the buildings will be occupied as shops and business chambers of first-class style, fitted with the most modern appliances, including a passenger hydraulic lift for the whole upper flats, entering from West George Street. The style of Architecture is Venetian, enriched by polished granite columns, and the stone used is red freestone from Locharbriggs Quarry, near Dumfries. Mr. Thompson was the Architect.

THE War Office authorities have decided to build a fort at Coomassie.

DIDIER SEVESTE is soon to figure among the effigies of the illustrious dead that adorn the house of Molière.

A LARGE structure known as Bretas Saw Mills, in Oystermouth Road, Swansea, has been destroyed by fire.

THE re-opening of St. Saviour's Collegiate Church, Southwark, has been definitely fixed for Tuesday, February 16th.

THE Vicar of Hampton is appealing for funds to repair the organ of the parish Church, which was the gift of King William IV. to the Church 66 years ago.

A BRASS tablet is to be placed in Bovey Tracey Parish Church, Devonshire, to the memory of the late Bishop Knight Bruce, who was vicar of the parish.

IN consequence of the recent strike in the engineering trade, a serious delay has taken place on the work of the second class cruisers "Arrogant" and "Furious," recently launched at Devonport.

THE cupola of the Church attached to the Military Hospital of the Trinity, at Naples, has fallen, burying two corporals, two soldiers, and two women beneath the *débris*.

RELICS FOUND AT THE DEMOLITION OF THE ROLLS CHAPEL.

IN the report of the Deputy Keeper of the Public Records, just issued as a Blue Book, the whole story of the Rolls Chapel, including its demolition, is told. There was a thought at one time of incorporating the old Chapel in the new block of the Public Record Office, removing only the roof, which, being made of wood, could not be permitted to remain part of a building which had to be fireproof. There were at least two precedents for such a course, one at Southampton, where a Norman house was incorporated in the town walls of the fourteenth century, the other at Rimini, where the walls and windows of a mediæval Church show under the Renaissance arches erected by Alberti for Sigiamondo Malatesta. This scheme was, however, abandoned when it was found that the old walls were thoroughly rotten, stonework and mortar having alike decayed with age. The rubble walls were, in fact, rent with long fissures, and there was no Architectural work that could be "restored" without being altogether re-made, mostly from entirely new designs. Under these circumstances, the First Commissioner of Works decided, it is said, with great reluctance, that the Chapel should be pulled down. Special treatment, however, has been promised to that portion of the new building which will occupy its site, and the old monuments and stained glass will be refixed therein. So the Chapel was pulled down, and Mr. Maxwell Lyte certainly gives one reason for the demolition of an ancient building which is unfamiliar. He can give a detailed account of the structure, which could not have been done if the walls had not been demolished. There were more prosaic and ruthless men in the days of the old Chapel of the Rolls than the Dean and Chapter of Peterborough. Seven years ago, as a consequence of successive alterations and repairs at the Rolls Chapel, there was not a particle of

MEDIÆVAL WORK

visible within or without. The inner roof was of lath and plaster, put up about 40 years ago, and the inner walls were lined throughout with plaster. The external walls were covered with a thin layer of flint, except in places where there were patches of comparatively modern brick, stone, and stucco. The buttresses had been removed or mutilated, and the four large windows were devoid of tracery. A mean and ugly building, says the Deputy Keeper, entirely without Architectural merit, and interesting mainly on account of its monuments and panels of stained glass. This was before No. 1, Rolls Yard, was taken down and revealed the walls, which it was thought, for a time, might remain. But when the actual demolition went on, all sorts of antiquarian relics were discovered. A window, for example, apparently dating from the time of Richard III., had, at an early date, been filled up with brick within and with rubble without. Still later, the tracery had been demolished and the upper part of the window filled up, partly with brick and partly with rubble, in which were found fragments of some of its former mullions. Again, there was a

WINDOW OF EDWARD I.'S TIME.

The jambs and mullions were of Caen stone, which had suffered little from age, but had been barbarously mutilated when the window was closed up, presumably in the middle of the seventeenth century. A fine chancel arch of the time of Henry III., the existence of which had never been suspected, was found in the east wall. The apex of it had been removed to make room for a window, but the stones were found in the north and south walls. The space under the arch could not be cleared to its base, which was two feet below the pavement, without destroying graves. The arch was therefore taken down. Every stone of it was, however, numbered and put away, and the intention is to re-erect it on a higher level near its original position, completing it with the fragments which were discovered in the north and south walls of the Chapel. There were buttresses of probably Henry III.'s reign, resting on brick arches of George I.'s day. In the north wall were found remnants of Architecture of Edward I.'s time and of Henry III. The Deputy Keeper of the Records gives a detailed description of the

MONUMENTS IN THE CHAPEL.

The history of the Rolls Chapel itself is cleared up by Mr. Lyte. It was originally the Chapel of the House of Converts founded by Henry III., for the reception of Jews who had embraced the Christian faith. The keepers of the House of Converts came also to be the keepers of the Rolls of Chancery, and the Chapel of the House of Converts came to be known popularly as the Rolls Chapel. There was a Master of the Rolls with the name of Sir Julius Cæsar, who, here in 1815, married Mrs. Hungate. The bride was given away by her uncle, Sir Francis Bacon. It is a popular error, propagated by Pennant's account of London, that Inigo Jones rebuilt the Chapel in 1617. There is no evidence to connect Inigo Jones with the Rolls Chapel, and he was not the ruthless restorer and reconstructor of that building in the seventeenth century. It is supposed to have been injured by the Great Fire of London.

KEYSTONES.

AT a meeting of the Wolverhampton Board of Guardians on the 8th inst., the General Purposes Committee presented a report recommending the Board to take immediate steps to secure a site for a new workhouse. No decision was arrived at.

A CHURCH is to be erected in the populous North-West Ward of Scarborough, which at present is situated in the parish of All Saints. A gentleman has offered to defray the cost of the edifice.

THE widow of Baron Maurice Hirsch, of Vienna, has resolved to present 2,000,000f. to the Pasteur Institute as a memorial of her husband. This will enable the building to be enlarged by chemical and biological laboratories, which it is estimated will cost 800,000f. Some of the professors, moreover, at present receive little or no salary.

THERE will presently be completed a new jetty at the north end of the Liverpool landing stage, which will enable the Irish and Scotch boats in future to be loaded or unloaded at any state of the tide. The new jetty will be connected with the harbour dock lines, which in turn connect with those of the various railway companies in Liverpool.

AN influential committee of clergy and laity at Sunderland have just resolved that a company shall be formed, with a capital of £10,000, for the purpose of pulling down some of the worst property in the town, and erecting model dwellings, reading rooms, institutes, and model lodging-houses in their place. In addition, the Sunderland Town Council is busy with a scheme for erecting about 450 workmen's dwellingss, at an estimated expenditure of £20,000.

THE construction of the Gouthwaite Compensation Reservoir is making satisfactory progress. The gauge basin beyond the great dam, and the training walls for conducting the river thence to its ordinary course, are practically completed, and early next year the Nidd, which has already been diverted from its original course from one side of the embankment to the other, will be led through the culverts in the dam, and the dam can then be continued on the side where the river now runs. The whole of the work at Gouthwaite will be finished in about three years.

AN inquiry has been held by Mr. W. A. Ducat, an inspector appointed by the Local Government Board, in the Manchester Town Hall, into the application of the Markets Committee of the Corporation for permission to borrow a sum of £12,000 for the purpose of purchasing property for the extension of Smithfield Market. It was stated that the Corporation had ample borrowing powers in connection with their markets, only £7,000 having been borrowed of £200,000 which they had power to borrow. The property it was now proposed to acquire was bounded by Oak Street, Scholes Street, and Foundry Street, near to the market. The reason the purchase had become necessary, was that so much produce was now brought to the market for disposal that it overflowed into the adjoining streets. He was instructed to ask that the Local Government Board would allow the full period of 50 years for the repayment of the money. The actual purchase-money amounted to £11,500, and the additional £500 was for expenses connected with the purchase. After the inquiry was closed, Mr. Ducat made an inspection of the property.

BRADFORD ART GALLERY.

At the close of the present photographic exhibition in the Bradford Corporation Art Gallery in Darley Street an Artists' loan exhibition of paintings will be opened. The list of works already promised shows the importance which Artists attach to Bradford as an Art centre, and shows that the sympathy and assistance of the Artistic world will not be lacking if the Corporation can be induced to lend, by the erection of an Art gallery, some substance to the movement about to be inaugurated for the celebration of the fiftieth anniversary of the incorporation of the borough. The display of works from members of the Royal Academy will be greater than at any previous exhibition. The successive Presidents of that body for some years past have contributed works to the annual exhibition at Darley Street, and Sir E. J. Poynter, P.R.A., has promised to follow in their footsteps by lending his important picture from last year's Academy, "Horæ Serenæ." Mr. G. F. Watts, R.A., will be represented by a very fine work entitled "Iris," which is lent by Sir William Agnew, to whom it belongs; Mr. H. Stacy Marks, R.A., sends his characteristic picture, "Old Schoolfellows"; and Mr. Frederick Goodall, R.A., a very uncharacteristic work—a large landscape in the south of England—which will be the more interesting from the infrequency with which Mr. Goodall chooses his subjects elsewhere than by Mediterranean waters. Mr. J. B. Burgess, R.A., Mr. Briton Rivière, R.A., and Mr. W. B. Richmond, R.A., will also be among the holders of full academic rank to exhibit. The last named, who is among the last to attain this dignity, sends his "Persephone and Psyche." Mr. David Murray, A.R.A., one of whose works was last year bought by the Corporation, sends two landscapes again this year; and Mr. Stanhope A. Forbes, A.R.A., will be represented by his work, "The New Calf," which will certainly be among the most popular pictures. It already has found an owner in Bradford, for it belongs to Mr. Daniel Delius. Another work of the highest interest is "The Annunciation," by Mr. Arthur Hacker, A.R.A., a picture which was bought out of the Chantry Fund. A good specimen of the work of Mr. J. W. North, A.R.A., who was a good deal talked about in Artistic circles a year or two ago, has probably never been seen in Bradford hitherto, but the exhibition will contain one very fine work of his. Pictures of Mr. George Clausen, A.R.A., and Mr. J. M. Swan, A.R.A., will also be included; and among the sculptures, which, owing to the unfortunate smallness of the gallery, will be few in number, will be a bronze bust of Mr. George Henschel, the musician, by Mr. E. Onslow Ford, R.A. Among the most eminent of the outsiders represented will be Mr. J. J. Shannon, Mr. H. H. La Thangue, and Mr. C. W. Furze.

EASTBOURNE IMPROVEMENTS.

A COMMENCEMENT has been made with the Marine Parade improvement at Eastbourne, an important work which will have the effect of connecting the east and west esplanades and of greatly adding to the attractiveness and enjoyable character of the Eastbourne sea promenade and drive. It was hoped by some members of the Corporation that it would have been possible to carry out this work for a sum materially below the Surveyor's estimate, namely, £9,800. But those who eagerly seized upon the fact that a tender much under the estimate had been presented as some ground for attacking the committee on its administrative policy in relation to the drainage works, were grievously disconcerted when this tender was withdrawn. As a matter of fact the tender of Messrs. Cooke and Son, which has been finally accepted, is only £200 below the Surveyor's estimate. These contractors have recently carried out some very important drainage works at Brighton in a highly satisfactory manner, and the committee is persuaded that they have placed the work in good hands. Again, as to the complaints which have been made on the score of unwarrantable delay, the committee is able to answer that it has obtained from the contractors a promise to proceed promptly with the work. The period named in the contract for the completion of the undertaking is six months from the date of signature.

SOCIETY MEETINGS.

Royal Institute of British Architects.—The fifth general meeting of the present session of the Royal Institute of British Architects was held on Monday, the 11th inst., at 9, Conduit Street. The President, Professor Aitchison, was in the chair, and business of a private nature was transacted. The result of the competitions for the Institute prizes and studentships of 1896–97 was announced as follows:—The Institute silver medal and twenty-five guineas (essays): subject, "The true value of tradition and precedent in Architectural Design." Full prize not awarded, but fifteen guineas was voted to J. J. Cresswell for an essay under the title "Things Old and New." The Institute silver medal and ten guineas (drawings): subject, "Measured drawings of ancient buildings in the United Kingdom"—F. G. Wass, device within circle (6 strainers). The Soane Medallion and £100 (for Continental travel): subject, "Design for a provincial market hall"—J. A. R. Inglis, Russet (6 strainers). A medal of merit was awarded to J. A. Swan (*Labor ipse Voluptas*, 6 strainers); and a certificate of honourable mention was given C. H. Holden (*L'Elephant d'Argent*, 6 strainers). The Pugin Studentship: Medal and £40 for travel in the United Kingdom (drawings)—W. Hayward (5 strainers); a silver medal was awarded to C. de Gruchy (6 strainers); and a certificate of hon. mention to Walter E. Dobson (6 strainers). The Godwin Bursary: silver medal and £40 for travel outside the United Kingdom (drawings)—R. Stephen Ayling (6 strainers). The Owen-Jones Studentship and £50 for travel and study of colour (drawings)—A. E. Henderson (5 strainers). Oldwinckle Studentship—Arthur T. Griffith (6 strainers). The Grissell Gold Medal and Ten Guineas, for design and construction: subject, "Design for a bay of a Church"—S. K. Greenslade; device, Heart and Shield (1 strainer). Ashpitel Prize—T. Denton Brooks, Doncaster. The Tite Prize, certificate and £30 (for travel in Italy): subject, "Design for an Italian villa and ornamental garden." The prize was not awarded.

Birmingham Architectural Association.—At a meeting of this Association, on Friday evening, Mr. E. Preston Hytch (Secretary to the School of Art) gave an address, entitled "The Architect as a Teacher." It was the duty of the Architect, he said, to stimulate work in the allied Arts. He could render to the community great service by facilitating the employment of worthy sculptors, mural decorators, wood carvers, and others. In this way his influence would also penetrate beyond those craftsmen working immediately under his supervision. This intimate connection between the Arts was clearly recognised in America. The attendance of young Architects at the various classes of the Birmingham Municipal School of Art was fraught with advantage to all concerned. It would be worse than a paradox if a community which spent large sums upon Art education should itself erect unworthy buildings. The possibility was considered of appointing, in connection with the First Commissionership of Public Works and Buildings, an advisory council of leading Architects, chosen on representative lines. Precedents could be found for the establishment of such a council. Giotto would not have done his great work at Florence had he not been appointed master of the works of the Cathedral and Architect of the city wall and of the towns within her territory. Attention was also called to the fact that, at least since 1885, no member of the Birmingham City Council was, in the municipal diary, described as an Architect. Birmingham did not stand alone in this matter, which was noticeable in view of the development of local duties and of their interest and importance to Architects. In conclusion, the lecturer summarised the work of the Municipal School of Art. A hearty vote of thanks was passed to him on the motion of Mr. Henman, seconded by Mr. H. T. Buckland, and supported by Mr. W. H. Bidlake.

Bradford Historical and Antiquarian Society.—Mr. Samuel Margettson, of Calverley, delivered a lantern lecture at the Church Institute, on Friday, the 8th inst., before the members of the Bradford Historical and Antiquarian Society, his subject being "Church Notes from Various Countries." Mr. J. N. Dickons (president) occupied the chair, and there was a large and appreciative audience. After remarking that village Churches were distinguishing features of English scenery, giving to it a character of its own, the Lecturer gave a resumé of the various styles of Church Architecture, from Saxon to Perpendicular, and then described and illustrated the typical Church in all its parts, giving views of the ancient lychgate, the churchyard cross, exteriors and interiors of Churches, porches, towers, roofs, fonts, benches, pulpits, lecterns, rood screens, stalls, piscinas, sedilia, reredos, monuments, and other features found in old Churches. Over 130 illustrative slides were exhibited.

Sanitary Inspectors' Association.—Before the members of the Sanitary Inspectors' Association, meeting at Carpenters' Hall, Dr. A. Newsholme, the Medical Officer of Health for Brighton, recently read a paper on "The Prevention of Tuberculosis." Mr. W. W. West occupied the chair.

Correspondence.

EXETER CHURCH COMPETITION.

To the Editor of THE BUILDERS' JOURNAL

DEAR SIR,—We notice in your paper of Jan. 6th, in reference to the Exeter Church Competition, that you ask for other competitors to send their drawings "with perspective sketches." Now, as by the competition instructions, perspectives were not allowed, and the successful drawings were published as sent in (geometrical drawings), we think it is hardly fair to illustrate perspective views. Only the drawings as submitted for competition should be published—that is, if a fair comparison is to be made. Everyone knows how perspectives can be, and are, made attractive to the eye, and every Architect knows how misleading they can be made.

We think, therefore, for the purpose of showing up the competition, only the drawings that were submitted should be published. If any competitor wishes, he can afterwards make a perspective for publication. COMPETITORS.

Notice.

IN consequence of pressure upon our space, the further illustrations in connection with the Exeter Church Competitions are held over until the next issue.

A SITE has been secured at Nelson, near the South Park, on which the Roman Catholics intend to build a new school, at a cost of £2,000.

ALDERMAN HARDING'S offer to provide, at his own expense, a central equestrian monument and eight bronze figure lamps for the Leeds City Square has been accepted.

The plumbers' strike at Swansea terminated last week, the employers conceding the demands of the men for 9*d.* per hour for 48 hours during winter months, and 8*d.* per hour for 54 hours during the summer months.

MR. H. J. DOBSON, R.S.W., of Bradford, has been awarded the first prize of £100 in Mellin's Art competition, for his picture entitled "The New Toy," which was in the last Academy Exhibition.

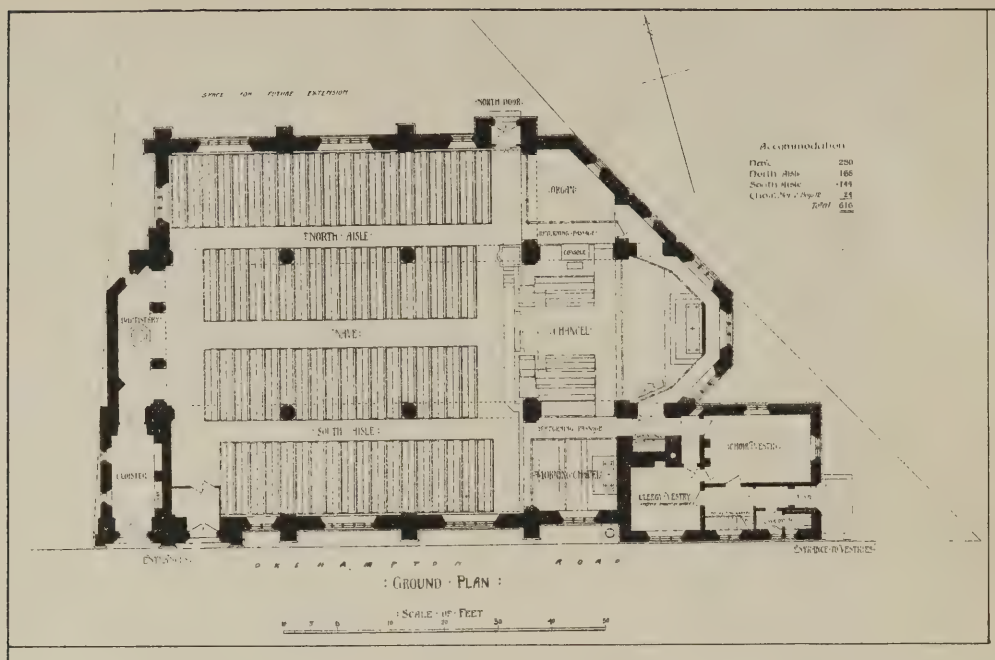
THE old station at Merrion, Ireland, has now been replaced by a handsome red brick structure, situate some hundred yards nearer to Booterstown. The railway company has now provided well-fitted waiting rooms and roofed the platform.

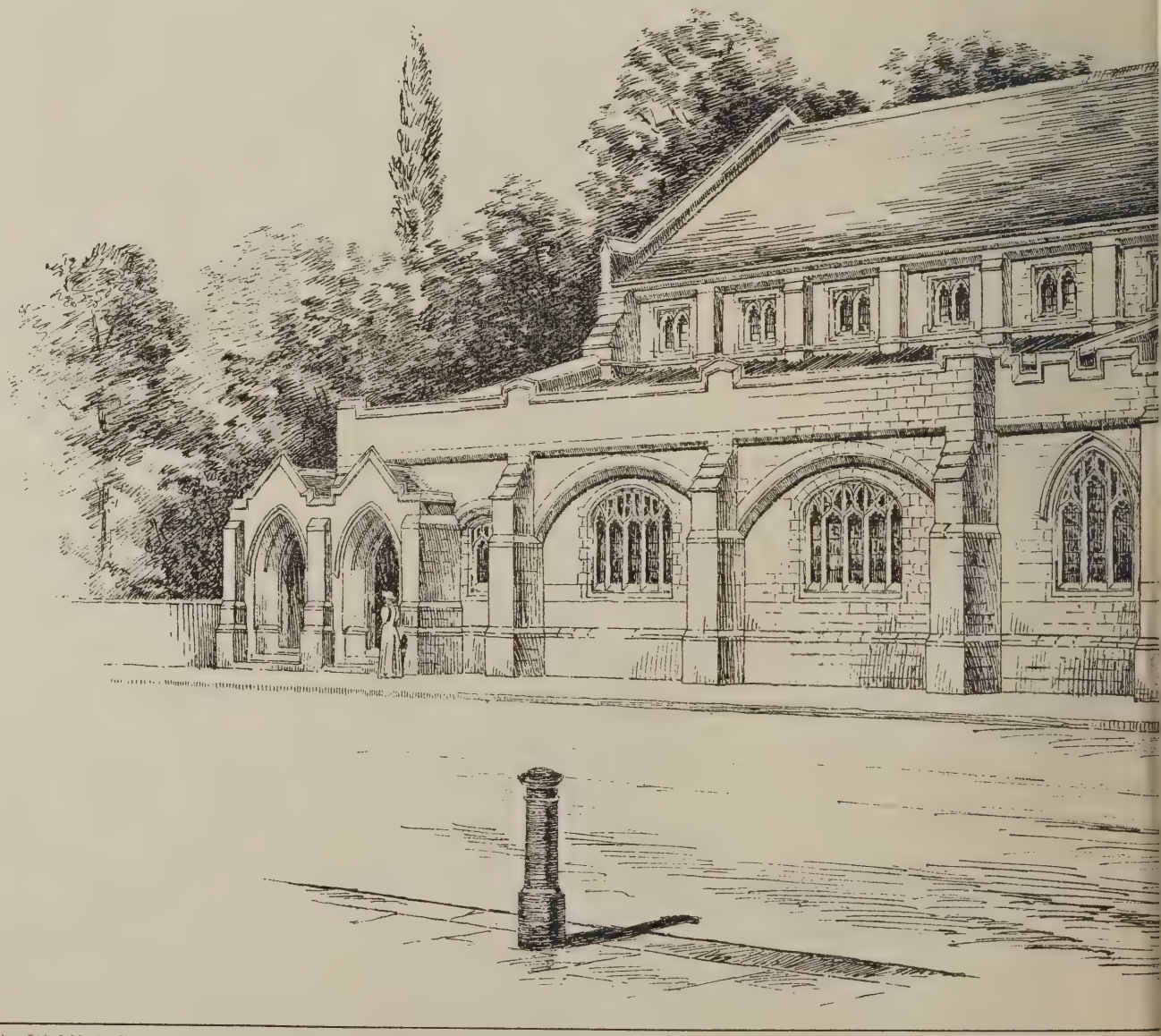
WHILE several men, employed on the Central London Railway Company, at Wood Lane, Shepherd's Bush, were pulling down houses a few days ago, one of the walls of one of the houses collapsed, injuring five men.

THE appointment is announced of Mr. C. R. Rowlandson as chief engineer to the M. S. and L. Railway Company in place of Mr. Alexander Ross, who recently accepted the position of engineer to the Great Northern Railway Company.

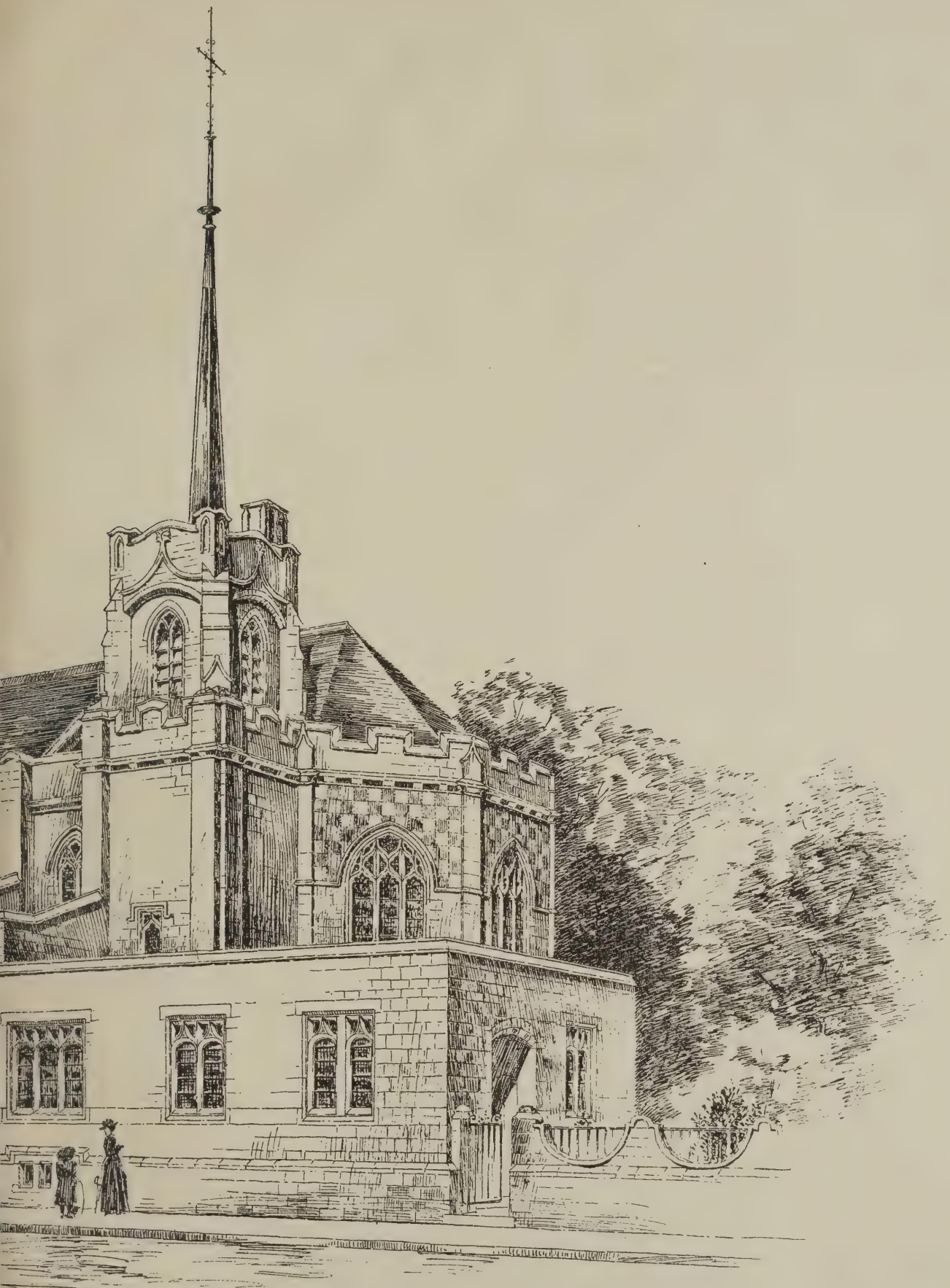
MR. W. J. WETENHALL, J.P., L.C.C., on Wednesday opened a Roman Catholic Chapel, which has been built at the cost of the St. Pancras Vestry in that part of the parish cemetery at East Finchley reserved for Roman Catholic interments.

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CHARLES V JOHNSON, ARCHT 1896, & DELT 1897.

MR. C. V. JOHNSON'S DESIGN.

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The Builders' Journal
AND
ARCHITECTURAL RECORD.

Vol. IV., No. 102. **Wed., January 20, 1897.**

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The Institute Awards. The exhibition at the Royal Institute of British Architects, of drawings submitted in competition for the prizes, seems hardly up to the usual level this year. The first thing that strikes one on looking at the designs sent in for the Soane medallion, "A Market Hall in a Provincial Town," is a certain wildness of aim and inability to grasp the essential character of the subject, combined with, in most instances, a striving after novelty for its own sake, which gives the designs an air of pretension and vulgarity by no means pleasing. We see features thrown in without any regard to their appropriateness or value, in some cases without any suggestion from the plan, and in other cases we see the plan forced and distorted to obtain them. One of the partial exceptions to this general rule is the prize design by Mr. Inglis, and, if for no other reason than this, we would be inclined to agree with the award. This design, in its general conception and treatment, is perhaps one of the most suitable for its purpose, and is treated with a certain dignity and simplicity, though it is not altogether free from the prevailing faults. One cannot help feeling that the projections, both at the sides and the ends, including the segmental portico, have been introduced chiefly for the sake of effect ; that there is no sufficient reason for them, and that their features and details are far from satisfactory, and beneath the level of the general design. The principal staircase is too small and cramped for its purpose, and would not improve the general appearance as seen from this side. The elevational drawings are charming, but the perspective, while being in a manner pleasing, is weak, out of tone, tricky, and unscientific, not showing the design to its full advantage. This design, though perhaps a little too magnificent in style and not sufficiently studied in plan, is by far the most satisfactory on the whole. A medal of merit has been awarded to Mr. J. A. Swan, for a design which is illustrated by a rather striking coloured perspective. The plan is not very satisfactory, and seems needlessly complicated by the introduction of a fire-engine shed, which does not appear to have been asked for. The staircase looks like an after thought, and is too cramped for the exit from a large hall. The two elevations not shown would probably not look so well as those drawn, and this is noticeable in most of the designs ; though there is no reason why a building, standing in the middle of a square, should not look equally well from all sides. The design to which has been awarded an honourable mention, does not possess the solid qualities of the one placed first, and it is doubtful whether its selection for special approval is altogether wise. It exhibits, in a marked degree, that self-conscious affectation of originality which is always foredoomed to failure, and which in this case never rises above the eccentric, and which, while it may or may not please individual tastes, entirely overrides and destroys all the Artistic expression. The general plan and conception of the building—while it could, no doubt, be used for its purpose if absolutely necessary—is not the natural expression of the requirements, and so cannot strictly be called Architecture. The clumsy tower, with its flight of steep steps, is altogether unnecessary, and is simply a feature introduced, for its own sake, from caprice, and the plan is spoilt in consequence. Such features as the door in the tower, with its archway cut through a frieze of figure sculpture, and its voussoirs jointing into the figures ; the sculptured panels over the arcade, destroying the construction and effect of the arches below and supporting columns above ; and the large buttress taken up through the end window, where it is not wanted, are simply novel (if they are that) because they are bad—simply the originality of the man who talks bad grammar. It would have been better if the time and ingenuity expended on such details, and on the background of the perspective, and the eccentric motto, had been spent in studying the plan and the general composition. This design shows a certain feeling for Art, and is drawn in a free and confident manner, and is an example of that cheap form of success open to any man who permits himself to



FRIEZE PANEL. DESIGNED BY E. P. WARREN. EXECUTED BY L. A. TURNER.

override all principle and common sense. We have discussed this design at some length, because we feel that it is not advisable to single out such productions for special reward, that it creates a bad precedent, and is not altogether fair to other competitors, who might possibly have been able to produce just as interesting a design, if they had allowed themselves a similar license. There are other designs to which these remarks apply with equal or greater force, but then they have not been selected for honourable mention. Several designs exhibit good and simple plans, entirely ruined by the desire to make a show and introduce imposing and pretentious features; such is the design with the device of the scallop-shell, and those under mottoes "Artifex" and "Bumble." "Briton" has an entirely different rendering of the plan to the others. He places his Market Hall on the first floor, and utilizes the ground floor for shops. This plan is very simple and unpretentious; and though the elevation is out of proportion, and the general shape rather clumsy, yet there is something about the simplicity of this scheme which pleases by contrast with its surroundings. With a little study this might be made into a very charming building. The design under motto, "'Neath Southern Skies," is perhaps the worst example of a reasonable plan, entirely ruined by the superstructure. There is something pathetic in the contemplation of so much wasted energy and misdirected enthusiasm. The drawings are most careful and elaborate, even the chairs in the hall being drawn in, but there is not the first idea of design—simply an accumulation of inappropriate features. The designs for the Tite prize—an Italian villa with garden—are but two in number, and the prize is not awarded. These two designs are very unlike in character and in quality. That under motto, "Gondola," is a simple and straightforward attempt at a characteristic building, and is, to our mind, distinctly pleasing. Though it is not, perhaps, carried very far, it is good as far as it goes, and on the principle that an inch in the right direction is better than a mile in the wrong, we think this design might have obtained some recognition. The Grissell Gold Medal, for the best design for "One Bay of a Church," is awarded to Mr. Greenslade, for a very slight and dainty drawing—so slight that it hardly does justice to his rather original design. Mr. Greenslade, while not neglecting the construction altogether, seems to have devoted his principal energies to the Artistic side of the problem, as opposed to most of the other competitors, who have laid most stress on the construction. We notice that many of them have covered their drawings with notes of the materials and workmanship, such as "3 coats oils," "inodorous felt," etc. If this is what is wanted, would it not be better to have a complete specification submitted with the designs for this competition. For the Pugin Studentships are submitted several sets of drawings very unequal in merit, though there is perhaps little to choose between the winning set and that placed second, both of which contain some very good sketches. We cannot help thinking that some of these elaborate drawings, in which there is a great repetition of detail, take up more time than is justifiable, that the student does not learn sufficient to compensate him for his trouble, and that it would be possible to select the most promising student otherwise. We notice that the old-fashioned method of blacking in windows and sections has not yet entirely disappeared, and also the method of tinting the outline of full-size sections of mouldings with a line of colour or ink parallel to the curve of the section, which entirely destroys their character and effect, especially when the mouldings are small and the line of colour is wide. The set of drawings by Mr. Dobson, to which has been awarded an honourable mention, contains drawings of the South Porch of Lincoln, a delightful rendering of a most delightful subject. The silver medal for measured work is awarded to Mr. Wass, for an elaborate set of drawings of Melrose Abbey. These drawings are very careful, but to us they are terribly hard and inartistic, and we must say we prefer those of St. Mary-le-Strand, by St. Mary, though there is not so much of them. Mr. Corlette, last year's Owen Jones student, has devoted himself entirely to the study of the Abbey Church of St. Savin, near Poictiers, and we are not surprised at his evident delight in his subject, for it is certainly a magnificent old building, and we envy him for the good time he has had. His drawings are most elaborate, and seem to give one a good idea of the original. This system of colouring the elevational drawings seems a much more sympathetic way of reproducing an old building than a precise line drawing in black-and-white. The sets of drawings for the "Owen Jones" and the "Aldwinckle" studentships, contain one or two very interesting and careful studies, but the average does not seem very high. There are on view a few sets of drawings, called "Testimonies of Study," which call for no special remark.

SEWAGE PRECIPITATION, WITH A SIMPLE AND CHEAP METHOD OF PURIFICATION.

THIS was the title of a paper recently read by Dr. G. Carrington Purvis before the Edinburgh Royal Scottish Society of Arts. First, he said he wished to consider briefly some of the various methods of sewage purification by chemical means; and, secondly, to introduce a simple method of sewage purification by precipitation, with an analysis of the effluent. A glance at the literature on the subject showed that some of the proposers of new methods had little or no knowledge of elementary chemistry. Others were in the dark as regards cost of chemicals and materials required; whilst a third class seemed bent on making improvements on previous methods, many of which were of a rather questionable nature, the idea of the improver being to obtain a patent and then try to dispose of it as speedily as possible to a company or syndicate. He mentioned various methods now in operation, and also some of the precipitants used in these processes. Amongst the disadvantages of the lime methods were that the effluent was strongly alkaline unless mineral acids were already present in the sewage, some of the organic matter in suspension was rendered soluble, there was putrefaction of the effluent, there was apt to be a disagreeable scum on the surface of the effluent, and there was apt to a choking of the filters. The object he had in view was to discover something simple and cheap, and something that would not interfere with the existing methods of precipitation. He also desired to obviate the presence of free lime in the effluent, to remove the added chemicals, and to use non-poisonous substances, so that the sludge could be used for manurial purposes. These results he obtained by simply passing carbonic acid into the sewage and adding lime to it in slight excess. Under his system twelve grains of carbonic acid and sixteen grains of lime per gallon of neutral sewage was necessary. The advantages claimed for the system were that the alkalinity of the effluent was not due to free lime, that no scum was formed, and that the precipitate, being of a flaky nature, it concentrated more and more while standing, and was most likely to entangle and carry down micro-organisms. In addition, no organic matter in suspension could be rendered soluble, as was said to be the case with free lime, and nothing was added to the sewage which was not again completely removed from it. In the discussion which followed, Dr. Stevenson Macadam said he was not satisfied that the process described by Dr. Purvis was a safe or practical one, nor did he think that the doctor had been able to throw what might be called practical light on the question of the utilisation and treatment of sewage.

FAMOUS MONUMENTS OF ART.

By Sir Benjamin Stone.

AT the annual distribution of certificates in connection with the Saltley and Bloomsbury Branches of the Birmingham Municipal School of Art, Sir Benjamin Stone, M.P., delivering an interesting lecture on "Famous Monuments of Art" said, his lecture was designed to show how Art came to be such an important feature in the world's history, and to do this it was necessary to go back, to a remote period and take a very comprehensive view. In the times which we called Pagan, people worshipped all kinds of objects, which to them were sources of mystery and awe, and all through the history of these forms of worship the main inducement was to expend wealth and labour and thought on the erection of some kind of fabric which should be an honour to the deities worshipped—whether it was in the famous temples of the Sun, the ruins of which had come down to our own time, or the most perfect forms of Ecclesiastical Architecture which were the product of mediæval times, the great incentive was to expend as much labour and effort as the people could command in erecting glorifying edifices to the gods they worshipped. And when this sentiment was most pronounced then the buildings erected were the most beautiful and most worthy of notice. Another most important motive which operated side by side with the religious or ecclesiastical motive was the embodiment of emblematical design, and this

Adaptation of Emblems

was so far-reaching, that at this day we were distinctly under the influence of efforts made in such remote ages, that their history had actually been lost. Thus the sun was the emblem of heat and power, trees of life and renewed life, objectionable animals, such as the serpent, of mischief and trouble, and so on; and this use of emblems had played a most important part in the teaching of humanity and the development of education to its present high condition. The very first form of language was put into shape by letters which were emblems, and right through the history of the human race they had exercised a most potent influence. In no other period was it so pronounced as in mediæval times, and in the Ecclesiastical Art of that time it reached its highest point. Emblematical design formed one of the chief motives of the decorative Art of that age, as evidenced in the magnificent Cathedrals and Temples erected then throughout Christendom. Another great motive of all ancient Art was preservation of the history of the dead, and its influence was traceable from the earliest efforts of the Egyptians down to the tombstones in our English churchyards. In addition to all these, there was the motive of domestic decoration, and we found that this influence was most effective in the great times of Ecclesiastical Architecture.

The Palaces of the Kings,

the castles of the great, and the dwellings of the rich were then most beautiful—not only in the times of the Romans and Grecians, but in both earlier and later times was this so, and the evidences ensured in the beautiful Guildhalls, the Trade Halls of Belgium, and the Town Halls in all parts of Europe, as well as in the buildings of an ecclesiastical type. In our own times we were not so much influenced by either the ecclesiastical or the emblematical motive; we had arrived at a better and more satisfactory condition of things, and loved Art for Art's sake. We encouraged its spread and the lessons to be derived from it, because the average of the human mind had risen to a point of culture and refinement unknown to our predecessors. In earlier times, Art was an exotic, made to flower and flourish under artificial conditions, but the Art of to-day stretched over a much wider area, and even among the poor there was a sense and knowledge of the beautiful and the refined, or, to use a common expression, of what is "nice." And the world was the better for it, because it must have a refining influence.

VAUXHALL BRIDGE has been re-opened for vehicular traffic, the slight breach or subsidence in the carriage-way on the Pimlico side which recently occurred having been repaired.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

Decorative Plaster Work.

With Illustrations.

By E. PRIOLEAU WARREN.

AMONG the subsidiary Arts with which the Architect has to deal there are few of more general application in importance than that of the plasterer. So much of our construction nowadays is of necessity concealed, and plaster is so handy a means of concealment, and indeed, when rightly used, so excellent a one, that its use in the interiors of buildings is inevitable.

It is a material so sympathetic and lending itself so easy to decorative treatment and the repetition of ornamental design, that a vast amount of decorative plaster work—good, bad, and indifferent, and I fear that the last two adjectives are fully entitled to qualify two-thirds of the work—is daily done. There are none of us who can well escape its use even if we wish to do so. It therefore behoves all of us who have to do with building and decorating to consider and to learn what can and should, or what cannot and should not, be done with plaster work; and it is much more with a desire to direct the attention of the younger members of my audience to some of its uses and abuses, than with any hope or intention of giving technical instruction, that I venture to appear before you.

One of the first considerations that borders the subjects of plaster work is that of its fatal facility—which constitutes a great decorative danger, its comparative cheapness, its possibilites of rapid workmanship, and the endless and easy opportunities of reproduction that it affords—in a word its immunity from the natural and powerful restraints that cost and structural necessities impose in most other building material, seem to me in the case of plaster work to render self-imposed restraint and careful discrimination more than ever necessary to the designer.

We are all of us, unhappily, familiar with the incontinent cornices of amazing horticultural suggestion, with their basketwork and lattices, their vines and passion flowers insecurely supported by internal vines, which bedecked the chief chambers of our fathers. We all know, and none of us, I hope, love the weirdly confectioned "centre flower" with dependent "gasalier" that formed the cherished ceiling ornament of the British householder in the '50's, the '60's, and even the '70's, and dropped in intermittent fragments into his tea cup or his soup tureen—so fearfully and wonderfully made, so all-pervading were these adornments, that they begot a natural nausea in time, a nausea that—as often happens in such cases—communicated itself in mental connexion to the innocent material that they vulgarised, causing sober folk to foreswear ornament of any kind in plaster work, to find a safe and wholesome refuge in absolute negative, absolute plainness. This was, of course, only a partial revulsion, and was accompanied or followed by "revivals," as they are called—of many types in plaster work, and in all Architectural design. The beautiful ceilings and friezes of the 17th century, which made our country famous for its plaster work, were studied to good purpose by the very few, to evil by the very many, and "Elizabethan" and "Jacobean" travesties became nearly as rife and rampant as the exuberance of the centre-flower period. "Revival" of Italian, French, Saracenic, indeed of all and every bygone manner, have been practised, and there are many eminent plaster shops where you can buy a "reach-me-down" design in imitation superficially correct of any style you please, at so much—the term is apt—"per superficial foot." These things have had a great vogue with the uninstructed, they please because they offer a romantic suggestion of a possibly romantic original, or of the manorial or seigniorial appurtenances of romantic fiction. A suggestion only, for even as copies they are poor, with their dead-level, floated grounds, their railway-line rigidity of "run" mouldings, their sharp arrises, and mechanical "repeats." What a contrast they offer to the originals they travesty! Any one who examines, with eyes of discernment, a good seventeenth-century English ceiling, will see that beautiful as the plan of design and forms of ornament may be in themselves, they only count for a portion of the total sum of beauty. The hand of time, and recurrent coats of whitewash, have often done much in contribution of effect, but the intrinsic, ineffable, underlying charm of handiwork is of human pleasure and interest, if "handling" is there.



PANEL OF SANCTUARY CEILING, GROOMBRIDGE CHURCH.—FIBROUS PLASTER. DESIGNED BY E. P. WARREN. EXECUTED BY L. A. TURNER.

The plain surfaces are not hard and level, they are full of slight undulations, the ribs or "strap work" have no mechanical rigidity, they are by no means accurate at their intersections, they are softly and pleasantly moulded, and usually undulate somewhat with the uneven surface of the ceiling.

The ornamental foliations—bosses, roses, and the like—when they repeat, do not do so with regimental exactitude; awkward corners caused by irregular wall lines, chimney breasts, etc., are lightly and nonchalantly dealt with; there is no strained attempt at fit, begotten of the drawing-board; the design is curtailed, expanded, chopped off, or twisted to meet the emergency in a manner that would look queer on a smart office drawing, but is delightful in reality.

Experts differ very much as to the methods of preparing the plaster used for these old ceilings, and as to the way in which they were put up. It is, of course, well known that some were rendered in lathing, some on rough withies, and some on reeds or rushes. It is obvious that casting was employed in many instances for the ornamental foliations and bosses, and it is stated that a sort of stamp or pressing-mould was employed for repeating ornaments of small size, such as the roses in the beautiful ceiling at Chastleton, one or two of which I was able to examine closely, as they had fallen down. They certainly seemed to me to have been squeezed into a mould. There are many indications that a good deal of the rib-work was formed by pressing into the plaster ceiling, while still damp, lengths of rib in a similar damp condition. One finds awkward joins and curious failures to fit to a centre, in the case of radiating ribs, which warrant that idea.

If you examine a fallen bit of plaster from one of these old ceilings you will generally find it very thick and coarse—often very earthy, and sometimes full of little bits of gravels, &c., the kind of stuff the conscientious Architect would have to condemn. But its very coarseness helped the effect of the plain surface by giving them texture, a quality we so often miss nowadays. How the elaborate and complicated ceilings were designed and set out we do not know with certainty, but there was probably a rough plan, which was all that a well-skilled workman needed he had his tools, his models, and his traditions. That he had models of ornaments for ceilings and friezes we

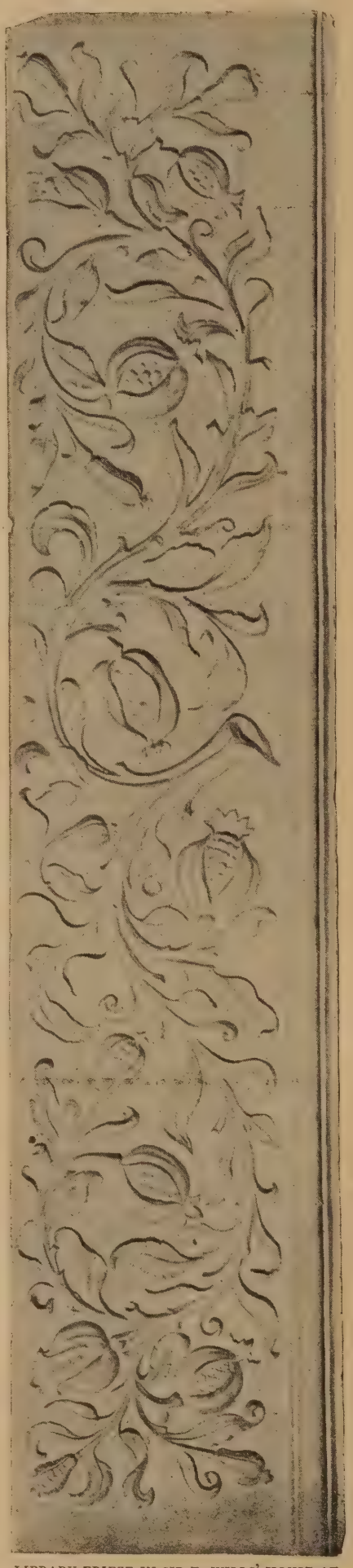


DRAWING ROOM CEILING IN HOUSE OF SIR F. WILLS, BOURNEMOUTH. DESIGNED BY E. P. WARREN. EXECUTED BY L. A. TURNER.

know, as we find exact repetition not only in different rooms of the same house, but in different houses. And you will often find ornamented designs, obviously intended for a ceiling, formed into a frieze or used to decorate the spandrels left between the horizontal frieze and the end of a vaulting ceiling, as in the library at Merton College, Oxford. It is probable, however, that much if not most of the decorative design was modelled *in situ* on the ceiling itself, partly with tools, partly with fingers.

When fingers were used upon the actual plaster it is obvious, as any plasterer will tell you, that the lime used cannot have been as sharp as that we use now—it must have been old or deadened, or the man's fingers would not stand it.

There are many lessons to be learned from the abundant examples to be found in almost every county of England, of beautiful old plaster work, while Scotland, Wales, and Ireland have their characteristic examples, and one of them is the extreme importance of plain surfaces of texture. I am glad to know that within the last few years that lesson has been taken to heart by one or two Artists who have turned their attention to plaster work. There were some striking instances of the fact in the work of Mr. Ernest Gimson, at the last Arts and Crafts Exhibition, work full of charm and feeling and quiet originality, and delightful in uneven surfaces, roughish texture, and broad unlaboured modelling; work as different in spirit from the average mechanical plaster work of to-day as was that of the Elizabethan or Jacobean plasterer. I believe that the first essential of success in plaster work of frieze or ceiling is the treatment of the ground. It will be difficult but necessary, if we are to succeed, to wrest from the modern workman his ideal of perfect even-floated and set levels, innocent of the faintest undulation as fresh thin snow over a sheet of ice, and looking just as cold and hard. It is amazing with what skill a good and conscientious plasterer, armed with his float and straight-edge, will arrive at that result. It is neat, it is smart, it is difficult to do, and he is proud of the achievement, and I do not blame him: he does well what is expected of him, and satisfies his conscience, we will hope. When his ceiling is to be subdivided by ribs, or decorated with ornament of any kind, he still appears to be ruled by the instinct for sharpness and rigidity. He starts with a billiard table surface, the ribs are "run" with a zinc mould *in situ*, or are cast in a "run" reverse mould and put up subsequently, the ornaments are cast from sharp, feelingless models, and the work reaches a wonderful perfection of mechanical accuracy which, to the mind of an Artist, is its glaring imperfection. The arrises are sharp as razors, the beads are round and smooth as glass tubes, a correspondence religiously exact is maintained on both sides of a certain line. The cornices are run as accurately, as mathematically as the rest, and the drawings and details are faithfully observed. The result is naturally as unsympathetic as the method. I speak of the average. I am well aware that, fortunately, there are exceptions—I am happy in believing that they are many, and the number seems likely to increase rapidly, as Architects increasingly devote more time and thought to what is one of the most interesting and important crafts amongst the many that they rule. What we need, it seems to me, to fit us for a more competent control of plaster work—as of so many crafts, is to draw less and model more. Fortunately, within the last few years a good many sculptors of talent have turned their attention to decorative plaster work, and beautiful ceilings, friezes, and panels in low relief, stand to the credit of several men whose names are well known to you. There is an increasing demand for decorative work in plaster. People, even of moderate means, are no longer generally content with the blank white lids of the boxes they live in. This discontent is exemplified in many ways, one of them is that suburban joy, the patterned ceiling paper; other indications are the patent substitutes for modelled ceilings, whose illustrated catalogues, with their alluring titles, are lavished in the letter-box and waste-paper basket of every Architect. A design for decorative friezes is also prevalent, and is exemplified by precisely similar instances. If this discontent is responsible for many queer results and unlovely makeshifts, it is not in itself ignoble. It is our business to divert it into wholesome channels. The instinct to enrich the ceiling or the roof is, I think, a natural and an obvious one—the roof is surely as worthy of adornment as the walls. In a Church or great hall it is, or should be, the crown and glory of the whole scheme. In domestic work, in the home of the average comfortable Briton, the cheap substitute for modelled plaster work obtains a readier acceptance on account of the fact that we dwell—most of us—like hermit crabs, in other people's shells. The leasehold condition of our occupancy has begotten a leasehold type of decoration. The householder wants something that will "last my time, don't you know"—or, at any rate, suffice for seven, fourteen, or twenty-one years. So he not unnaturally shrinks from permanency, which implies cost, and he thinks the real thing costly; but, as a matter of fact, it is by no means necessarily so. With care and thought, and a little ingenuity, it is possible to get good decorative results in plaster at small cost. There are many ways, for instance, of redeeming the absolute bareness of a plain plaster ceiling without much expenditure. You can have a well-moulded cornice and divide your ceilings into plain panels by means of shallow ribs. At very little extra cost, if your design "repeats," you can put some simple little ornament into the panels. You can dispense with ribs, and have ornamental corner-pieces and a centre; or you can have the general field plain, and have an ornamental circle next the cornice, and modelled in low broad relief. Where your conditions make it possible, and, I should say, in a longish room or corridor, you can drop the cornice a little way down the wall, and form your ceiling to a shallow curve. This may be delightful in itself, even if quite unrelieved, or can be very effectively decorated with light ribs at intervals and simple flattish ornaments. There is really no end to the simple and effective possibilities of very slightly decorated ceilings. I have seen an old ceiling in a low room at Oxford which has four corner ornaments and a centre, very simply indented in a highly conventionalised grape-vine design—and it wants nothing more—but the plain surface is such as would horrify the skilled plasterers of to-day.



LIBRARY FRIEZE IN SIR F. WILLS' HOUSE AT BOURNEMOUTH. DESIGNED BY E. P. WARREN EXECUTED BY L. A. TURNER.

The ceiling under an ordinary collar-rafter roof frequently gives a pleasant opportunity for plaster decoration. You can accept the splayed side between ceiling and cornice, and treat it as a sort of sloping frieze, ornamenting the flat under the collars more simply and sparsely, or you can fix out and form a curved or vaulted ceiling, as I have suggested before; and a vault is one of the most delightful fields for decoration.

When cost is not a closely restrictive consideration, the range of possibilities is wide for ceiling, frieze, decorative panels in chimney breasts, or such like positions, or for the treatment of the walls themselves. It is sometimes desirable—in a hall or a ball-room, for instance—to treat the walls with a permanent Architectural decoration that precludes further adornment by means of pictures, wall papers or hangings, and this, if you use low relief and have a good protective base or dado, can well be done with plaster work, by means of pilasters, decorated panelling, reliefs, &c.

If pilasters are used, it is generally advisable to enclose the plaster relief in a wooden frame, for preservation's sake. Whatever the field of your decoration, it is necessary, of course, to use restraint, to avoid over-crowding and fussiness, to aim at a broad decorative result, to remember that you will cheapen your devices by over-repetition, and spoil your ornament by over-elaboration. The eye wants some unornamented spaces to rest upon. It seems to me in most cases wise to have rather plainly treated walls and a simple frieze, for instance, where your ceiling is elaborate, and a simple ceiling where you want an elaborate frieze. It is hardly necessary to say that your plaster work should be "plastering" in effect, found and soft, and should not imitate the treatment of any other material.

The ceiling, frieze, panels, or whatever form the plaster work may take, should fall into the Architectural scheme of the interior they contribute to, they must be in coherent relation to the rest. The scale must be preserved. And there are many considerations to be taken into account in designing a frieze or ceiling. The proportion of the room, of course, first. It is obvious that the same design would be inappropriate, in one instance, if applied to two rooms, one of which was 10 ft. high and the other 20 ft.,

and that a long, low room needs different ceiling treatment to a high square one. Then the lighting must be taken into account. Where the tops of the windows reach nearly to the ceiling, and especially where a longish room has such windows pretty evenly distributed along one side



MODEL OF A CHURCH CEILING, BRADFORD, YORKS, BY GEO. FRAMPTON, A.R.A., E. P. WARREN, ARCHITECT.

only, very delicate relief will tell at a considerable height. In the same room if the windows are low, or so small as to give inadequate lights, the relief will require to be bolder in order to tell. A room lit from two opposite sides, giving a strong cross light, is the most difficult to treat successfully. The cross light defeats the shadows and spoils the effect of relief; in such a room greater emphasis, greater sharpness of modelling is advisable. All these remarks are intended to apply to daylight effects, but artificial lighting should be considered too. In great reception rooms, chiefly used at nights, and in all rooms intended to be brilliantly lit—say, by electric light—it is well to keep the relief rather softer and more delicate than in rooms of more ordinary character in illumination.

As a rule, in an averagely lighted room, up to 13 ft. or 15 ft. in height, the relief of ceiling-mouldings or ornaments does not require any great projection if the ceiling is left white or nearly white, as relief looks exaggerated. Ribs, I think, are but rather broad and shallow in form, and with a tendency to round members rather than sharp arrised ones. Their size, of course, must depend upon the scale of the room, the heights at which they occur, and the effect arrived at. Constructional beams, dividing the length of a ceiling, frequently helps the design greatly, and are capable of very effective treatment in themselves. In many a splendid old ceiling the ornament was confined entirely to the beams and the cornice with which they intersected.

When there are no beams, I am personally inclined to prefer detachment between the decorative design of the ceiling and the cornice. This helps you if you wish to leave the ceiling whitish, and to colour the cornice; and, generally speaking, the cornice must be regarded as the crown of the wall and not as the beginning of the ceiling.

However, that is, after all, a matter of design or circumstance; it is risky to generalize too freely. But it is safe to say that too much attention cannot be bestowed, first, on the ground surface—whether of ceiling, frieze, or panel; and, second, on the modelling of any ornament, whether simple rib or foliated or arabesque design. If you cannot be sure of getting good modelling, have none at all: find safety in plainness. If you wish to avoid sharpness and hardness, have ribs and cornices modelled, not run. Keep them simple and broad, not liny and wiry. Generally speaking, I believe, that for ceilings, a more or less geometric basis for the leading lines, gives the happiest effect; the arrangement should, at any rate, be ordered, if not formal. But whatever the basis and whatever the treatment, the design should essentially be a ceiling design, the ornamentation of a flat surface, to be seen from below, and in a room where it is intended to be seen from all points, it should "read," as it is called, in all directions equally well, though it may have a main longitudinal or lateral tendency. It is, perhaps, hardly necessary to counsel the avoidance of any obviously unsuitable type of design for a ceiling, such as sways and festoons, suitable, perhaps, on a vertical surface like a frieze, where the sense of vertical dependence is appropriate, but inappropriate and awkward as a ceiling. A frequently effective treatment for a tallish frieze is to have some form of ornament repeated at widish intervals, the interspaces being either quite plain or filled with a plain moulded panel. Up to this point in my paper, I have so far dealt with the consideration of plaster work for the interiors of private houses. Great mansions and great civic buildings differ in degree rather than in kind from these, and, as regards their internal plaster work, the principles applicable to smaller buildings apply to them. Where deep-beamed and coffered ceilings are used, greater structural supporting is needed for them, and bolder modelling and moulding of course, to preserve their relation in scale to their Architecture. They often present the decorative problem of the treatment of domes, of which in a civic building, I have not yet seen a strikingly original treatment in plaster-work. I have seen, however, dozens of domes treated with diminishing coffered panels, whose framework ascends on converging radial lines. Wren left us many fine instances of these. The dome of St. Stephen's, Walbrook, is, I think, the most beautiful instance I know. In this dome there are four tiers of diminishing coffer panels, the second above the cornice, and the final one having panels corresponding in width to those of the first and third. And, indeed, Wren's Churches, and those of his pupils and immediate successor, provide abundant field for study of a certain type of design in plaster work, mannered and formal very often, but full of vigorous character and excellent workmanship.

A great deal of the plaster-wash, which is by no means confined to the ceilings of our city Churches is, of course, subject to the criticism of being in direct and purposeful imitation of classical Italian models in stone or marble. The coffered soffits of the arches of St. Bride's, Fleet Street, and St. Katherine Cree, show this strongly, and it is observable that in St. Paul's Cathedral stone and plaster details are of precisely the same character. In St. Stephen's, Walworth, there is much fine plaster work beside the dome, there are light and narrowish arch soffits with running patterns of roses, &c., and the transverse arches of the vaulted roof, mark the plain vaulting bays, unrelieved except by a large centre boss, with a boldly-modelled band of convoluted foliage ornament. The Churches of St. Mary Aldermary, and St. Katherine Cree, both have groined Gothic ceilings in plaster, very reprehensible theoretically, but distinctly picturesque. And at St. Mary's Aldermary, the arch spandrels of the nave arcade are charmingly filled with coats-of-arms, and flowers, and fruit, &c.—a good instance of the effect of confining ornament, using it to give special emphasis to particular features of construction—the wall above the arches being perfectly plain. Christ Church, Newgate, shows a sparing use of plaster adornment. And the beautiful little interior of St. Anne and St. Agnes, Aldersgate, shows in its large decorative panel borders, its shallow arch cofferings, and the enriched soffits of its corner spaces, some graceful and delightful examples of this Anglo-Italian Architectural style of plaster work.

It has been reserved for the last few decades of this century, and the devotees of the "Gothic Revival," to find that plaster work is inappropriate to the interior of a Church. In the seventeenth and eighteenth centuries, and until near the end of the first half of the nineteenth, plaster ceilings were the rule and not the exception in Churches.

A great many very charming ones have disappeared before the hand of the restorer, but several seventeenth and numberless eighteenth-century examples remain. I am glad to see that plaster work is regaining its place in Church interiors; it provides, at any rate, a pleasing variant to ceilings of stained or painted deal, or to open roofs with timbers of a small scantling and wrought "die-square." For the enriched ceiling of sanctuary, chancel or side chapel, I think it is a most excellent material; and the invention of fibrous plaster makes it possible, with little difficulty and comparatively small cost, to use enriched plaster work, not only for ceilings, but for other decorative purposes in Churches.

The slabs of plaster which bear portions of the design, or completely fill separate panels, are put up like woodwork, and screwed to the rafters or firring pieces, put to receive them. Each slab should be composed of thinnish plaster, embedding layers—usually two in number, I believe, of very wide-meshed canvas; the plaster being worked well through the meshes. They are stiffened with laths and battens, and can be worked to any required angle or curve. If the relief is not great, they are very light. When a number of slabs have to be joined to form a ceiling, without intermediate ribs, it is customary to pack damp canvas between their meeting edges, which not only protects them, but forms a stiff setting when it dries; the fissures are subsequently pointed in with plaster. Brass screws should be used for fixing, and the screw-holes, of course, must be stopped in. If steel screws are used, the heads require to be coated with japan or paint, to prevent the inevitable rust from staining the plaster.

I put up a panelled ceiling of this kind over the sanctuary at Groombridge Church some two years ago. I believe that many of you have visited that building. In that case the panels were each in one slab, and their edges were clipped by the overlapping oak ribs and fillets.

In the Church of St. Clement's, at Bradford, I had the good fortune to secure, for the decoration of the chancel roof, the services of Mr. George Frampton, who modelled the fibrous plaster ceiling, and of Mr. Anning Bell, who coloured it.

In this case Mr. Frampton was first provided with a model, to a scale, I think, of one-quarter full size of one side of the covered inner roof. On this he modelled his first sketch, which with some other details of the ceiling, he afterwards exhibited at the Arts and Crafts Exhibition two years ago. He then set to work on a full-sized model of the eastern bay, and upon the repeating ornament of shields and rose trees, and the frieze of cherubs that fill the rest of the ceiling. Casts were made from his models and were screwed up, joined, and stopped in the manner I have before described. The ridge, cornice, and vertical ribs are of deal, and are painted and gilded with the rest of the ceiling, which was dry and paintable within a day or two of fixing.

The use of fibrous plaster enables one to escape the flatness and rigidity I have spoken of as due to floating surfaces and running mouldings. The casts bear the direct impression of the modeller's handling. The use of this material is not without its artistic dangers, the chief of which is that its modelling is not as a rule done upon the actual ceiling. It is possible, of course, to model *in situ*, and then cast from the models elsewhere, and that, I fancy, would be one of the safest ways in which to prepare the design for a fibrous ceiling; for nothing can quite come up to the actual position and the actual lighting of the building for which the work is destined. The next best

method is to arrange your model in the workshop at as nearly as possible the height that the ultimate casting will occupy, approximating as far as possible the conditions of light and surroundings, and modelling the ceiling from below. If you cannot manage this, it is wise, at least, to get your model either conveyed to the site it is to occupy, or hoisted up in some similar position for your judgment of effect.

It is essential in case of a ceiling with a cornice, and divided by plaster ribs, to have cornice and ribs cast from models also, not run. In the case of ribs this can be efficiently done by casting a reverse from the first model and pressing the clay into it to form ribs for the model section of the ceiling. The laying of the moist clay ribs into the ground surface of the model insures the avoidance of rigidity. I have said that it is impracticable to mould with the fingers the actual plaster so as to avoid casting altogether, unless that plaster differs very much from what we generally use. But that difference is now obtained, as I am told, by the use of old or deadened lime, and some special kind of sand, and ceilings and other decorative work are modelled in plaster and in position. That, it seems to me, must be the best plan possible when the object is to avoid repetition, and when cost admits of it; further, where exact repetition can be avoided the better will be the result.

The consideration of decorative plaster work for the exteriors of buildings is almost a subject by itself. As you know, a great use of it was made in certain districts, the eastern counties especially, in the fifteenth, sixteenth, and seventeenth centuries. "Sparrow's" house, at Ipswich, is a striking instance of rather coarse and crude, but very picturesque, adornment. A good deal of external plaster work (using that term to cover work in cement and selenitic mortar) has been done, and is doing, in our time, as several of Mr. Norman Shaw's buildings testify. Until quite recent times the old traditional and delightful "stick-work" was done by village plasterers in rendered cottage fronts, but I fear that tradition has gone the way of many others.

One suggestion I would make with regard to external work in low relief, is that the relief should be stronger on the north side of a building than on the others.

I have now only a few words to say as to the treatment of finished plaster work. When the plaster—fibrous or otherwise—is perfectly dry, it can be treated with a thin coating of wax dissolved in turpentine, wiped or rubbed here and there with a rag; this gives it a pleasant, soft, ivory-like appearance that is more agreeable than the even tint of distemper. (At Cambridge I had the shields and emblems entirely gilded, and then glazed over partially with thin oil colour, the whole of the remainder being waxed.) If heraldry is employed, the coats-of-arms must of course be coloured, or the blazonry is incomplete. There are some good instances of the effect of emblazoned coats occurring in a general field of toned white plaster in the cloisters of Corpus College, Oxford. It is a contrast of which I am fond, that of richly-toned heraldry and toned white plaster-work. In Church work it is likely that colour over the whole surface of the work may be needed, and this presents difficulties either in the case of oil colour or distemper; in the latter case the suction of the plaster will probably need to be stopped with a coat of priming. I referred just now to the effects of a cross-light. In my opinion a ceiling lit from both sides requires colour, and perhaps gilding, more imperatively than one lit from side or end only, when the relief gets its full value through shadows.

Plaster reliefs may, of course, be readily used for decorating wall-spaces or arch spandrels in Churches. There is, in fact, no end to its decorative applicability. Time, and your patience, would fail me if I endeavoured to cover all the ground of my subject. You will notice that I have omitted all consideration of Sgraffito work and Scagliola, which certainly come under the head of decorative plaster work. I did so advisedly, for the cornice subject alone would readily fill the limits of a paper like this.

For similar reasons I have not treated of foreign work—Italian, French, Spanish, or Mauresque, European or Asiatic; the subject is really a tremendous one. If I have succeeded in arousing any interest or enthusiasm for a very attractive craft, I have realised the full intention of my paper.

(*Discussion on this Paper next week.*)

LONDON CLAY.

In the course of a long article "On the Distribution of Towns and Villages in England," contributed to the Geographical Journal, Mr. George Chisholm points out that the London clay deposit is generally characterised by the small number of towns and villages to be found on it. For the most part, the sites preferred either belong to other members of the so-called London tertiaries (in which sands, gravels, loams, and conglomerates predominate), or such as have the London clay covered by more recent deposits of glacial or other origin. The reason for this is, he says, no doubt the fact that water is generally difficult to obtain in this deposit. Professor Prestwich has pointed out that the difficulty of obtaining water retarded the growth of London towards the north until water was conveyed thither in pipes, and caused the suburbs to spread rather west and north-west, where there are extensive deposits of glacial gravel and sand. To the north-west and north of London, Edgware, Stanmore, Bushey, and Harrow-on-the-Hill, are the chief places on the London clay. Pinner lies on a patch of the Woolwich and Reading beds; Totteridge, Chipping Barnet, and Monken Hadley occupy patches of pebble gravel of uncertain age; Finchley is situated on boulder clay, Southgate on glacial gravel and sand; Hampstead and Highgate are on the Lower Bagshot beds; Tottenham, Edmonton, Enfield, Hoddesdon, and Waltham Cross on gravel and sand to the west, and Watham Abbey on a similar deposit to the east, of the alluvium of the Lea. While Epping and Hainault Forests are both chiefly on London clay, the town of Epping lies on a deposit of brick-earth overlaying that formation; Chigwell is situated chiefly on a patch of glacial gravel and sand; Brentwood and Havering-atte-Bower lie on patches of the Lower Bagshot pebble beds; Barking, Great and Little Ilford, and Romford, all on gravel and sand, the last immediately adjoining London clay. Further east, in Essex, the only towns or considerable villages on London clay are South Benfleet, Leigh, and Burnham, (the last partly on brick earth). To the north, Dunmow, Braintree, Colchester, and Hadleigh (Suffolk), lie on glacial gravel overlying London clay.

South of the Thames

only recent London suburbs (Brixton, Streatham, Norwood, Sydenham) are on London clay; while in the south-east, Eltham, Bromley, Chislehurst, and Hayes are on the Oldhaven beds; Orpington, the Crays, Bexley, and Crayford are on a narrow strip of gravel and sand; Dartford, Sutton-at-Hone, Darenth, Horton Kirby, Farningham, Eynesford, Lullingstone, and Shoreham, all on a similar deposit or on chalk. In the south-west, Morden and Hook are the only considerable villages entirely on London clay, although many others on the borders straggle on to this formation. All the villages already mentioned as lying on or near the north border of the chalk between Guildford and Croydon, where not on the chalk itself, have their nuclei on a narrow strip of the Woolwich and Reading beds or on recent gravel, while outside of, but on or near the north margin of the London clay in this quarter lie Merton, Wimbledon, Esher, Cobham, Ripley, Send, and Worplesdon. Since the laying of the railway, Wimbledon has descended to the London clay low grounds, but Old Wimbledon is confined to the upper gravel flats. In many cases the presence of river alluvium and recent marine deposits, has manifestly determined the precise situation in which early settlements grew up. For the most part, alluvial sites are avoided, and many of the towns found on such sites are of

Comparatively Recent Origin,

and some have been deliberately created on account of special advantages of position, in defiance of the disadvantage of the site. Of course, alluvial deposits are not absolutely uniform in character. In some places they are drier and more firmly consolidated than in others, and in alluvial plains very slight inequalities of surface will favour the drainage and consolidation of the higher parts, and all the more when the inequality of the ground is due to some firmer subjacent deposit, which has had the effect of thinning the covering of alluvium. Moreover, it is to be borne in mind that the unsuitability of an alluvial site as a foundation for building is not the only reason for avoiding such sites, when others of a different kind are available in the vicinity. The very richness of alluvial deposits is a reason for not covering them with buildings, and for establishing the villages on adjoining deposits. On both banks of the Thames and its estuary below London, the marshy nature of the littoral alluvium is the chief cause of the comparative paucity of towns and villages, most of which stand on sites where deposits of another kind are met with on the bank.

On the North Bank of the Thames,

the presence of chalk at Purfleet, and gravel and sand at Grays Thurrock, has allowed of the formation of settlement, while chalk comes very close to the shore at Tilbury, and gravel and sand at Southend and Shoeburyness; on the south bank Woolwich stands on the Oldhaven beds, Erith on Thanet beds, and Greenhithe and Gravesend on chalk. The surface of the Isle of Sheppey is entirely alluvial, but it gradually rises towards the north, where the alluvium overlies cliffs of London clay, above which the villages of Minster and Warden (formerly further inland) are situated. The town of Sheerness, and the older, but now decayed town of Queenborough lie on softer alluvial sites, but both of these towns took their origin in works erected for defensive purposes. The town of Queenborough, named after Queen Philippa, grew up round a castle, built, in 1364, by her consort, Edward III., and a well, 200 ft. in depth, had to be dug for water, which, even at that depth, was brackish, pure water not being obtainable till the well was dug 80 ft. deeper in 1729. Sheerness, again, hardly existed as a town before the erection of the defensive works begun by Charles II., and its site is in a large measure artificial, composed of piles and the carcases of old ships.

KEYSTONES.

During some excavations on Hope Hill, Baildon Moor, in connection with the Yorkshire Gannister Company's works, the workmen came across a large earthenware jug, supposed to be of Roman origin.

A serious gas explosion occurred last week in the public buildings at Penzance, and considerable damage was done to the north-east corner of the building. The glass, ceilings, plastered walls, and doors of the Geological Museum, the staircase, ante-rooms, and corridors, were shattered and broken.

At a meeting at Bristol, to consider the best means of celebrating the Queen's long reign, the Mayor suggested the erection of a public Art gallery, at a cost of £25,000. Mr. W. J. Storrs-Fry suggested that a sanatorium should be erected in connection with the medical charities, towards which subscriptions, including one of £1,000. would be at once forthcoming.

It has been decided to add another large block of buildings to the Portsmouth Sailors' Rest. Miss Weston has secured a site in Arundel Street, once used as a newspaper office, which will be attached to the Rest by a bridge across Chandos Street. The new block will provide sleeping accommodation for 200 men, thereby bringing the total number of berths at the Rest to about 500.

Willesden Board of Guardians has completed the purchase of 68½ acres of land on the Twyford Abbey estate, Acton Lane, at a cost of £14,000, for the purpose of erecting a new workhouse, the total expenditure on site and buildings being estimated at £100,000. A proposition to build cottage homes for the children is also under consideration, and the requisite offices and board room for the meetings of the guardians will be provided.

The Secretary of State for Foreign Affairs has received a dispatch from Her Majesty's Consul at Corunna stating that tenders are invited by the Spanish Ministry for Public Works for the improvement of the Port of Llanes, in the Province of Asturias. Sealed tenders will be received at the office of the Minister of Public Works up to the 26th inst., and will be opened on the 1st proximo. Conditions, plans, and estimates may be seen at the general office of Public Works at Madras, and at the Public Works Department of Oviedo (Province of Asturias).

DURHAM AND ITS CATHEDRAL.

(With Special Illustrations.)

By A. LINDSAY MILLER.

MY first impression of the *Town* was unfavourable: closer inspection did not alter this opinion. In the earlier days, when quaint half-timber fronts would face the narrow, winding, hilly streets, which makes the town ugly and inconvenient, would then only add to its quaintness.

As a Border town, Durham figures on several occasions in the wars between England and Scotland. Edward I., in 1296, brought from Scotland the Black Rood, the sanctifying relic round which David I. of Scotland raised the House of Holyrood—and gifted it to Durham Cathedral—and Bruce, in 1312, surprised the town, slew all who resisted him, and reduced a great part to ruins. The Castle, however, resisted his efforts, but the rest of the city was sacked, and so great was the spoil that the inhabitants, dreading a repetition of the visit, paid blackmail. In 1346, David II. made a raid into the bishopric and plundered the place, but was afterwards defeated, taken prisoner and sent to the Tower of London. Leaving out further consideration of the town, we wander up the narrow steep street leading to the Cathedral. We reach the Cathedral and proceed at once to record its beauties with the camera and the pencil.

The history of this Cathedral is very exact and complete, owing to the documents connected with its erection and maintenance having been carefully preserved, so that little difficulty is found in fixing the period of erection of any portion, along with the name of the bishop-builder who erected the several portions.

In a notice of the Cathedral it would not do to leave out the interesting account of its foundation. The patron Saint (St. Cuthbert) like so many eminent men then and since, was born in Scotland; he first saw the light on the southern edge of the Lammermoors, and at the age of 8, found shelter in the house of an old widow in the village of "Wrangholm."

Slowly his longings settled into a resolute will towards a religious life, and he made his way at last to a group of log shanties in the midst of an untilled solitude, where a few Irish monks from Lindisfarne had settled in the mission station of Melrose. Afterwards, on foot and horseback, he wandered amongst the rough inhabitants of the mountain villages, and through a large part of Northumbria, which then extended to the Frith of Forth. Of sweet look and full of humorous good sense, backed by a vigorous frame, he was well fitted for his work as a missionary. Against his will he was made Bishop of Hexham, but shortly afterwards was transferred to Lindisfarne, of which he was elected Bishop, A.D. 685. For this position he was well qualified, as he had a conciliatory spirit, kindness, firmness, patience, and self-control, besides being skilful to rule. After a beneficent reign of two years he died on the great Farne, A.D. 687. When dying, he expressed a wish to be buried in front of the Oratory at Farne, but the abbot prevailed upon him to allow his body to be buried at Lindisfarne. He consented, on condition that his body should be buried within the Church, in order that they might have the opportunity of visiting his grave at pleasure; at the same time he made the request that if ever they were compelled to leave the place, they were to take up his bones and remove them to whatever place God might provide. He was buried in a stone coffin and remained there for eleven years, when, from a wish to elevate his bones above ground to receive proper veneration, a carved wooden coffin was prepared.

On a recent examination of the grave, portions of this coffin were found in a state of preservation, and are now in the library attached to the Cathedral.

Passing to 875, a period when the Danes landed and harried the coast of Northumbria, the monks fled—leaving, however, the body of the Saint behind. Returning some time after, they were delighted to find that the Church, though stripped of every valuable, *still possessed the body of St. Cuthbert*. Carrying with them then the valuable body of the Saint, they travelled over a great part of the north of England, also over a considerable portion of the south of Scotland. This wandering state of affairs continued to 883, a period of eight years, when they settled at Chester-le-Street. There are a few relics left of their sojourn there, in the shape of portions of crosses decorated with sculpture, the design being an elaborate interlacing pattern, common to the period. There the monks rested till their removal to Durham, in 995.

The superior position of Durham was, no doubt, the reason why it was selected for the site of the Cathedral. The site is a plateau of moderate extent, but enclosed by the steep banks of the river which runs almost entirely around it, assuming a horse-shoe shape, and in those days would be practically impregnable, a matter of great importance. This sensible way of looking at the situation differs from the legend which runs as follows:—After having brought the body of St. Cuthbert as far as Wardelaw, somewhere east of Durham, on a sudden, by a weighty miracle, the vehicle containing the body became fixed, so that the whole Diocese could not move it, by which they perceived St. Cuthbert did not want again to be carried to Chester.

The Saint made a revelation to a devout monk that Dunholm was his place of pepetual rest, and the weight was then lifted off the cart. The place named by the Saint was not known to the monks till they heard one female enquire of another whither her cow had strayed; her reply, "down in Dunholm," immediately pointed out the place to the wanderers.

In support of this, there is pointed out in a niche on the north-west angle of the nine altars, a sculpture representing two maids and a cow, but the historians of Durham consider they were placed there by Bishop Flambard, as emblematic of the wealth of the Church. Billings states that the present cow was carved during Wyatt's restoration, and not in imitation of the original.



SOUTH VIEW OF DURHAM CATHEDRAL.



WESTERN TOWERS AND CLOISTERS.

Returning to the site, let me quote a description of it:—"No grander one can be conceived. Rising high above the surrounding river, which clasps it about in its protecting embrace, upon steep, rocky and wooded banks, in near connection and combination with the neighbouring but not rivalling castle, it forms a picture scarcely to be excelled, and whose beauty few other scenes can efface. There is a reflection which will naturally occur to you when you review this position; you will recall the site of many other great monasteries and contrast them with this at Durham. The contrast is indeed great. As a rule, the chosen place for the settlement of a monastic house, if it was not in an already existing town, was in some retired and low-lying spot, on a rich and sheltered piece of land, by the banks of some river well stored with fish, and where the surrounding hills closed it in from the blasts of inclement storms, and from the eye of the world without. All spoke there of peace and contemplation, of seclusion from the ordinary life of strife, trouble and unrest, and for a longing of calm and repose to come. Here at Durham was the very opposite, the Church fronted the world as if in defiance, alike regardless of the tempest which beat against its massive walls. The castle, also, so near, so intimate, suggests another reflection. At Durham, we cannot sever the connection between the Bishop and the monks.

The unity of the old congregation of St. Cuthbert still lingers about the place, and the monastery takes its stand alongside the castle, on the rocky height, as part of a great defensive work, equally against a spiritual as against an earthly foe.

Before leaving this introduction, let me notice another great man who lies buried in Durham Cathedral, viz., the Venerable Bede, the author of the life of St. Cuthbert. Bede was a student of great learning, living a life of unselfish piety, a great writer, and, in his "Ecclesiastical History of the English Nations," he became the first English historian. All that we really know of the century and a half that followed the landing of St. Augustine we know from him. Whilst still young he became a teacher, and six hundred monks, besides strangers that flocked thither, became his pupils. First amongst English scholars, theologian or historian, it is in the monk of Jarrow that English literature strikes its roots. In the six hundred scholars who gathered round him for instruction he is the father of our national education. He died at Jarrow, in 735, and was buried there, a pious monk at

Durham, who had charge of the body of St. Cuthbert, being of opinion that two such men should be together at death, brought Bede's body to Durham.



DURHAM CATHEDRAL: DOOR TO CLOISTERS.

The monks having settled at Durham, commenced to erect a Church, first a wooden Church, till, in 999, Bishop Aldhun completed a stone Church. This building remained till after the Norman conquest, till William of St. Carilef became Bishop, in 1081. He became a party to the rebellion against William Rufus, in 1088, and was for three years an exile in Normandy. Normandy, at that time, would be full of large and noble Churches, some lately erected, and his religious zeal, fired by their beauty, would make him emulous to raise at Durham something worthy of the service of God; and probably he would make a careful and earnest study of the best examples and mature plans to be carried out on his return from exile. At all events, on his return he commenced the present structure, and on the 11th of August, 1093, the foundation stone was laid, the old Church having been taken down, and as the Bishop had been accumulating money for his building, it went on rapidly, and he appears to have completed the choir, as far as the first compartment of the nave, before his death, about 1096, a period of only three years. The eastern end of this Church was afterwards removed, to give place to the Chapel of the Nine Altars. It was a matter of doubt how the choir originally terminated some time ago, but it was discovered that the finish of the central portion of the choir was apsidal, and it was suspected that the termination of the choir-aisles would be the same. This question was settled some time ago by the discovery of the walls indicating a similar termination to the centre of the choir. It is worthy of notice that the refectory is of older date than the choir, as from records we find that during the Bishop's exile in Normandy the monks resident at Durham built this part of the Abbey.

After the death of Bishop Carilef, Bishop Flambard, who was elected in 1092, continued the work, and completed the nave as far as the vaulting, including the side aisles and their vaults, and probably the lower portion of the western towers. In addition to this, Bishop Flambard added considerably to the domestic buildings of the monastery. During the five years which elapsed before the accession of Bishop Rufus, the work was carried on by the monks, who erected the west side of the transepts and the vault of the north one.

Bishop Rufus, 1133 to 1140, completed the chapter-house, which was demolished in 1796.

Passing over a few years, to 1153, we come to Bishop Pudsey, who, though a young man when raised to the chair, effected a number of additions. He commenced the erection of a lady-Chapel at the east end, but, as we will see later, changed his plans, and ended the Galillee at the west end, where were placed the bones of the Venerable Bede, in 1370. In 1242, Prior Melsanby commenced the erection of the Chapel of Nine Altars at the east end, and the work was completed in 1280. The Bishop's Throne was erected by Bishop Hatfield, 1345–1381; to this period also belongs the screen at the high altar. The stalls and tabernacle work were erected in 1660–1672, and in 1796, at the hands of Mr. Wyatt, it underwent restoration, as they termed it then.

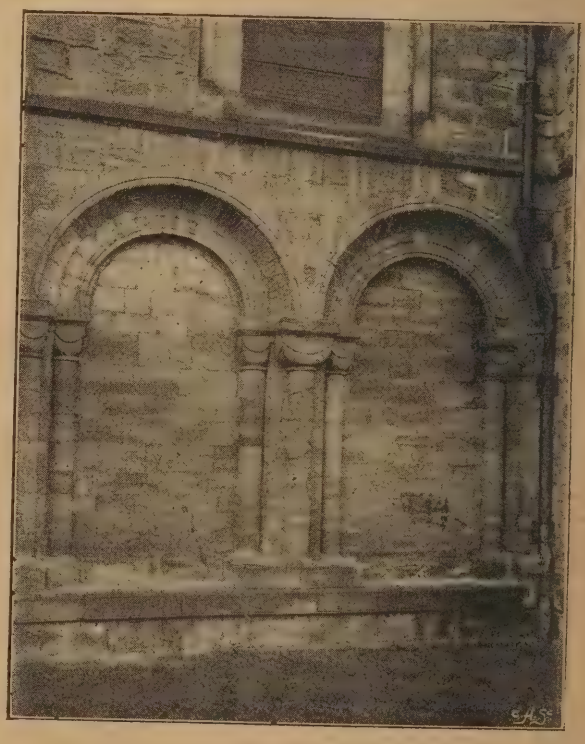
These few remarks indicate, in a general way, the history of the Cathedral.

It has been remarked that the Cathedrals of England differ considerably from those on the continent in the proportion of their breadth to their length, a difference difficult to explain, unless when they retained the form of some older Church. They at least display individuality, and whilst probably not so suitable for an audience to listen to addresses from the officiating priests, they certainly increase their picturesque appearance, and are much more impressive to the visitor than their continental neighbours.

This extreme length and breadth was modified in the case of Durham, where the choir and nave are more nearly of a size; the length of the nave being about two and a-half times the width over the aisles, and the choir to the back of the Chapel of Nine Altars being about twice the width. It has been also claimed for Durham that the builders from the first seemed to have in view the stone vaulting of nave and choir, and the great strength of the piers and arches would bear out this idea; and I have given, in the introduction, the early dates claimed for the vaulting, but I fear the date when vaulting was first tried in England, early in the thirteenth century, will hardly support this idea. This, however, might be said, that as we know vaulting of a simple form was in use at a much earlier period on the continent, Bishop Carilef may have been acquainted with it, and desirous of carrying it out at Durham, but was hindered by the constructive difficulties in the way. Even in early Norman work, when the side aisles might be vaulted, the nave was covered with a wooden roof. My own opinion is that the vaulting of the choir belongs to a later period than the rest of the building, and the only portion that would make me doubt this idea is the vaulting of the north transept. One thing may be said, however, that the bold mouldings of the early wooden roofs, when replaced by stone, gave vigour to the vaultings as the vigorous lines of the timber were reproduced in the stone, there being an absence of that stringiness which offends in the vaulting of continental Cathedrals. In Prior Melsanby's work, in 1233, at Durham, we have one of the earliest examples of vaulting in England.

Noticing the several portions more particularly, we have already seen that Bishop Carilef finished the choir and the aisles with an apsidal termination; this becoming dangerous, Prior Melsanby obtained an indulgence remitting thirty days of penance to all who would aid in the erection, by gifts or otherwise, of the new portion, *i.e.*, the Chapel of the Nine Altars. This document, after alluding to the incorruptibility of St. Cuthbert, says:—"Above his sepulchre devout men of old ended a vaulted roof of stone, which at the present day is so full of fissures and cracks that its fall seems to be approaching; seeing, therefore, our venerable brother, Lord Bishop of Durham, wishing to obviate so manifest a danger, is disposed by the aid of God to erect a new building at the eastern end of the Church aforesaid; we exhort and admonish one and all of you, that ye be willing out of your goods tenderly hearted to give the assistance of your charity." This Chapel comprises nine compartments, the central one consisting of a single bay, the side one of three bays each. In the Chapel of the Nine Altars the central compartment has three lancet windows and in each of the side bays there is a window,—this gave nine spaces for altars,—hence the name, "Chapel of Nine Altars." The floor of this Chapel is lower than that of the choir by a few steps—I fancy for the purpose of giving greater dignity and better proportion. Along the lower walls there is an arrangement of arcading which reaches from the floor to the sill of the windows, the two centre columns being stopped at a level to correspond with the height of the altar. There is an indication at the side of accompanying photo of an arrangement of the clustering columns dividing each bay, the dark columns being marble. One feels naturally that this work belongs to the best period of Early English, as the grace of the trefoil arches with their deeply undercut mouldings clearly indicate; the effect seen at present is very much injured by the insertion of marble tablets. This arcading runs right round the lower walls of the Chapel, and forms a beautiful feature. There are some very beautiful capitals in this chapel, and the "Joseph Window," at the north end of the Chapel, is interesting with its double set of tracery, joined at intervals by stone bars. The groined roof is also interesting and unusual in form, but the general arrangement has a beautiful effect, and the height obtained by lowering the floor gives it great dignity and elegance.

In this Chapel, immediately behind the high altar, and on a platform at the level of the choir is a slab covering the remains of St. Cuthbert. Entering the choir, which is in two divisions, each division being again divided into two bays, we have several features worthy of notice.



ARCADING ON NAVE OF NORTH FRONT.

1st. The High Altar and Screen.—Billings considers this screen as the most remarkable in the kingdom, either as regards magnificence or richness of detail. The whole is of Dorsetshire clunck, very rich in detail, and was formerly ornamented with 107 statues, some of life size, which were placed in niches. These statues were all richly deco-

rated, and the removal of them hurts the general appearance of the screen, which looks rather stiff and stingy. The two doors in the lower part of the screen gave access to the shrine of St. Cuthbert, which though now a plain slab would doubtless at one time be covered over with a Gothic shrine, as it was in a later period (as shown in Billing's) covered with a classic one which was removed.



DURHAM CATHEDRAL. CHOIR LOOKING SOUTH.

In the north-east and south-east piers of the choir are the closets or aumrys in which the vessels of the altar were deposited. A portion of the screen dividing the choir from the aisles, like the stalls, is 17th-century work, executed during the episcopate of Bishop Cosin, 1660-1672, the design being attributed to James Clement, Architect, of Durham. It is debased Gothic, general effect rich, but on inspection of the detail disappoints us.

An interesting feature in the choir is the Bishop's Throne with its richly decorated arch, under which lies the effigy of Bishop Hatfield, who erected it. The wall of the stair is richly panelled, and the brackets indicate that figures once filled the panels. The parapet railing which is comparatively modern, replacing an older one, is of wood, but rather classic in treatment. This throne we are told was once richly decorated in gold and colours, traces of which still remain.

The rose window in the east end of the Chapel of the Nine Altars is one of Wyatt's improvements in 1795, and replaced one possibly put in by Prior Messington, 1416 1466, and whilst good enough in form is, I consider, too light and delicate to appear so prominently as a feature in the dignified Norman choir. The screen which divides the nave and choir is of quite modern date; it is entirely out of place both in form and detail and offends the eye. The designer of it has evidently not been in sympathy with his surroundings. The pulpit has the same fault as the screen, as, however excellent as a design, it is out of place and looks weak and insignificant amidst the massive Norman piers which surround it. The lectern is a rich and elaborate piece of metalwork of considerable size, the termination being a swan, and not the regulation eagle.

Returning to a description of the Church proper, and looking at the transepts and the nave we find that each transept has two compartments of two bays with only one aisle on the east side. The transepts as we have seen were erected about the same time as the nave, but, as to the vaulting, Rev. Mr. Greenwell writes: - "You will recognize a difference between the vaulting ribs of the transepts; those of the north corresponding with the Norman work of the choir and its aisles, whilst those of the south have more in common with the nave." In his opinion (and appearances certainly bear it out) the north transept was vaulted earlier than the south. The general appearance of the nave is very impressive, all in admirable proportion and suggesting grandeur and majesty. It is divided into four compartments, each with two bays. The piers, like those in the choir and transepts, are cruciform in shape and the intermediate columns are round with great square bases. The circular columns are grooved in lozenge, spiral and diaper patterns not usual in work of this period. The effect of this grooving on one of the pillars of the south transept, being similar to the grooving at Dunfermline, has the appearance of altering the proportions of the column from different standpoints. In front of the piers are a group of columns which rise up to near the top of the triforium, and from which the vaulting springs.

There is an almost total absence of ornament on capitals and arches, lending greater dignity to the building. Another feature which adds dignity to the interior is the division of the height of the building between the arches of the nave, the triforium and the clerestory; a due care in the proportioning of these parts makes or mars the general effect of the interior. Durham, like several of our best Cathedrals, has the proportions of one half of the height to the nave arches, and the other half divided about equally between the triforium and the clerestory. A change to any considerable extent in these proportions would have altered the general appearance for the worse.

(To be continued.)

KEYSTONES.

WE beg to notify that Mr. John A. Gill Knight has removed to 21, Godliman Street, Doctors Commons.

THE celebrated painter, Karl Koechling, has just finished a large oil painting from a sketch and details furnished by Kaiser Wilhelm. It is destined for the mess saloon of the Officers' Club of the 1st Guards Regiment. The painting depicts the attack of the regiment on St. Privat, on the evening of the 18th of August, 1870.

THE Darlington carpenters and joiners, society and non-society men, have passed a resolution to the effect that owing to the activity of the building trade in Darlington, and the improvement in trade generally, an increase of 1*d.* per hour should be asked for from April 19th next, three months' notice being given according to rule.

THE St. Andrew's Parochial Boys' Schools, Dublin, which have just been completed, are the largest in the city, and will accommodate 1,200 boys. The fine structure is now almost, if not completely, free of debt, and the chief remaining burden arises from the heavy obligation incurred in regard to the purchase of the site.

THERE was celebrated, at Queen Anne's Mansions, at St. James's Park, on the 11th inst., the twenty-first anniversary as an institution of the "Flat." The mansions were started by Mr. Hankey, the banker, whose enterprise, now so successful, came to be known as "Hankey's Folly." The mansions turned out to be one of the most successful experiments in a new form of household life, however. Electrically lighted throughout, they are fireproof, and have been re-decorated throughout by Messrs. Waring.

WORKING CLASS DWELLINGS IN BIRMINGHAM.

ACCORDING to a report of the Improvement Committee of the Birmingham City Council, 193 dwellings suitable for the artisan class, at rents varying from 5s. to 6s. each, with three bedrooms, have been erected in the vicinity of Ryder Street. The committee having provided so many houses of this class, would like to supply a dwelling suitable for that portion of the working class who are earning a labourer's wage. Drawings have, therefore, been submitted by the committee, showing such suggested dwellings, from which it appears that it is proposed to erect upon the Milk Street site 64 dwellings, each having a living room 12 ft. 6 in. by 11 ft., bedroom 12 ft. 6 in. by 9 ft., bedroom 11 ft. 3 in. by 8 ft., w.c., scullery to every two houses 10 ft. by 8 ft. 6 in. These houses are designed on the dual-house system—viz., one house built upon another, access to the upper tier of houses being obtained by a balcony running the whole length of the rear of the dwellings, and are estimated to cost £6,250. The rent proposed to be charged is, for the lower houses 4s. 3d., and the upper 3s. 9d.; but these rentals have been calculated upon the basis that no charge is made for sinking fund on the cost of the site, and that the repayment of the loan on the cost of dwellings and land is granted for 50 years. It is absolutely impossible to erect, without loss to the ratepayer, dwellings within the city suitable for the labouring classes, at the rents above-mentioned, unless upon either this method or the flat system. As with the Ryder Street dwellings, these houses will be under the direct control of the committee, and while care will be given to the comfort and well-being of the tenants, every precaution will be taken to guard against overcrowding. Although in accordance with the requirements of the Local Government Board, only one-half of the site has been cleared for building, the remaining part is wholly unoccupied, and the materials in the buildings are rapidly disappearing; under these circumstances it is suggested that the scheme be carried through in one contract, and the committee, therefore, recommends that the proposed scheme be approved, subject to such modifications as is deemed advisable, and that the Finance Committee be authorised to borrow a sum not exceeding £6,250 for the purpose of carrying out such scheme.



CHOIR LOOKING EAST.

THE Trustees of the Bedford Infirmary have decided to commence building a new county hospital at a cost of about £33,000. Towards the sum required £27,000 is already in hand.

Bricks and Mortar.

EFFINGHAM HOUSE, ARUNDEL STREET,
January 20th, 1897.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

FOR the proposed Purdysburn Asylum the Architects of Belfast were recently invited to send in plans in competition, but only eight Architects have responded. The Asylum is to be erected upon a very uneven site, and will be in two sections, one for curable and the other for incurable patients; at present it is proposed only to erect the building for the incurables—the total accommodation will be for 1,000 patients, and the cost is expected to be not less than £125,000, or £125 per patient, but in the first instance it is proposed to expend not more than £50,000, or to provide for more than 360 patients. The plans will be publicly exhibited shortly.

WRITING to the Times with reference to Lord Rosebery's recent question touching the Whitehall cock-pit, Mr. H. W. Hoare says his inquiries show that the pit, "which had escaped the destructive fire of 1697, was probably demolished when that part of the present Treasury buildings which faces the Parade was built, in or about 1733, by W. Kent. Kent's plans are not forthcoming. The Office of Works cannot trace them, nor can the Office of Woods, nor can the Treasury. The Horse Guards (built at the same time by W. Kent) have no copy of the plans, and their index gives no clue to them. The Record Office can only testify that it existed. No light on the subject can be thrown by the Department for MSS. in the British Museum. After the cock-pit had ceased to be used for cock-fighting it was in occasional use down to the reign of Charles I. as a theatre for dramatic and for musical entertainments, but the records of the Lord Chamberlain's Office have no reference save to the supply of lights for it. Lord Rosebery was, I think, under a misapprehension in supposing that the site could no longer be identified. From Fisher's well-known map, dated 1680, and from drawings in the Soane Museum, its *locale* can be fixed, and this has been done by Mr. Taylor, of the Office of Works. The Chancellor of the Exchequer and the Secretary of the Treasury occupy rooms just over the old site."

HAVING now obtained the permission of the Local Government Board to deal with the insanitary property in the neighbourhood of York Street, and also that at Camp Field, the Leeds Insanitary Areas Committee has resolved to recommend the Council to proceed with schemes for dealing with the whole of the two areas. It is the committee's intention to demolish much of the crowded and unhealthy property at present existing in the locality; to cut two or three broad streets through the property, and, eventually, possibly to make York Street and Marsh Lane each 60 feet wide. The latter idea has not yet, however, taken the form of a written recommendation. As to the smaller area in Camp Field, the Corporation appears only within the last few weeks to have obtained the necessary sanction of the Local Government Board to proceed with the work, and this permission is granted conditionally, the Local Government Board stipulating that the Corporation shall provide the artisans' dwellings in the neighbourhood of the property demolished.

MANY people have doubtless been wondering when the block of buildings flanked by the entrance and exit to the Hotel Cecil in the Strand is coming down. For a long time the windows of these shops have borne bills notifying the speedy departure of the tenants and demolition of the structure itself. When the alteration will take place is not yet known, for the management of the hotel, with whom the matter rests, are awaiting a favourable opportunity, and are only keeping their tenants on at a weekly notice. When finally the present set of buildings is razed to the ground, the new erection will be pushed back some four feet, thus widening the Strand.

IN a recent number of the City Press Mr. Funston asked why chalk was used as a building material in olden times. Builders generally concur in the opinion that it was cheap, and easily wrought and obtained. From the quarries near the Thames it was loaded into barges, and being brought to the City was carted to the required spot at a far less cost than that at which bricks or stone could be laid down. In the "Buried City Church" of Leadenhall Street, the inside filling of the cellar walls was chalk, in a proportion of two of brick to one of chalk. Lambeth Church and many other old buildings have also walls "filled in" with chalk, which material lends itself admirably to a solid bond. In excavating for the Grand Surrey Canal, east of the Old Kent Road, in 1809, the labourers cut into an old Roman road, some 15 feet wide, the bed of which was formed of squared chalk secured by oak piles. From the 250 yards broken up between 400 and 500 cart-loads were removed. In Lambeth Marsh more chalk foundations were found, which would seem to show that the use of that material where it was "out of sight" was done on the score of cheapness as well as because of its easy carriage by water to the vicinity of the work, and its adaptability for "working." One other very general use of chalk is as a paving for the foreshore of the wharves along the banks of the river. Laid in large blocks it makes an admirable pavement which will not chafe a barge as stone would, and the greasy Thames mud hardly sticks to it at all. Again referring to the Leadenhall Street crypt the walls were almost all torn down—no slight job, as the front wall was some four feet thick, and very solid—and the stone arches shared the same fate. Amongst other rubbish found in digging was a tombstone with a date of 1560.

ONCE again comes a cry of vandalism from Richmond Hill. It is alleged that some Richmond Vandals harboured the idea of "improving" the terrace by decimating a hedge which enhances the rusticity of the scene, and substituting what was described as an excruciatingly formal "hair-pin" iron fence. At a meeting of the Town Council, last week, the subject was discussed, and a memorial received, signed by Sir Edward Poynter, Sir James Linton, Mr. Alma Tadema, Mr. Val Prinsep, and a large number of members and associates of the Royal Academy and other Artists protesting against the proposed change, and pointing out how void of beauty was an iron fence compared with holly and hawthorn. In the course of discussion it was contended that the intentions of the innovators towards the hedge were strictly honourable, their proposal being merely to strengthen the weakness of Nature by placing a low iron railing, 2 ft. 9 in. high, behind the shrubs. They had got advice on the subject from Mr. Nicholson, curator of Kew Gardens, and what they were going to do was really in the interests of beauty. Much debate followed, and an amendment, negativing all interference with the hedge, was ultimately withdrawn on an assurance being given that the Council had no intention to erect a "hair-pin" fence of an unsightly kind.

AN attempt has been made recently to bring about the reopening of the Grosvenor Gallery. Certain eminent painters who were among the most distinguished supporters of the gallery in the old days made overtures to Sir Coutts Lindsay in the hope that he might be persuaded to devote the spacious rooms once more to the uses for which they were originally intended. Sir Coutts could not be induced, however, to entertain the proposal, and for this year, at all events, the doors of the Grosvenor will remain closed to the general public. Few will find fault with the proprietor's decision. There are already too many picture galleries in London, and the New Gallery and the Grafton together more than fill the gap which was caused by the closing of the Grosvenor six years ago.

THE greatest treasure possessed by the historic Church of St. Mary Overy, better known perhaps as St. Saviour's, Southwark, is the peal of twelve bells, pronounced by many experts to be the finest in the world for quality of tone. The tenor, weighing more than 24 tons, and nine other bells were recast in 1735 from an older peal made in 1424 out of the metal of seven earlier bells. This testifies to the respectable antiquity of the metal of ten out of the twelve bells at present hanging in the tower. They have been silent since the Church has been in the hands of the restorers, but it is to be hoped that the future Cathedral, which is being so carefully renovated, will not lack its most distinctive and unique feature for want of funds to put the peal in order.

RECENTLY the Central London Railway Company made an application to the City authorities for permission to make a new surface opening at the north end of Walbrook, close to the Lord Mayor's private entrance to the Mansion House, in connection with the construction of the new terminal station at the Bank. The Commission of Sewers offered to allow an opening at the south end of the widened portion of Walbrook, near the back of the Mansion House; but at last week's meeting of that body a reply was read from the company stating that this would require the driving of a special tunnel at a prohibitive cost. The company therefore renewed its application to be allowed to make an opening at the north end of Walbrook, but this was met by another refusal, Mr. Deputy Cox remarking that he believed the Lord Mayor would be inclined to move out rather than submit to such a monstrosity in front of his private entrance. Should the company persist in the application, the matter will have to be referred to arbitration.

THE ninth annual drawing of the Crystal Palace Art Union (under the sanction of the Board of Trade) will take place at the Crystal Palace on the 29th inst. Twenty prize pictures have been selected by the committee, the first prize being a painting, value £100, entitled "In the Meadows at Noon," by T. Sidney Cooper, R.A.; the second, a water-colour drawing, value £75, entitled "Found by the Sea," by A. M. Rossi; the third, a painting by Haynes King, R.B.A., value £60, entitled "Overhauling the Nets"; and the fourth, a painting entitled "Cupboard Love," by Miss Edith Hayllar. The pictures are now on view on a screen opposite the Concert Room, and a full list of the prizes, with all other particulars, may be had from Mr. C. W. Wass, the superintendent of the Crystal Palace Picture Gallery. The subscription list closes on the 27th inst.

DURING the nine months which have elapsed since the last public announcement, considerable progress has been made with the work of the Huxley Memorial Committee. The full-sized model for the statue, on which Mr. Onslow Ford, R.A., is engaged, is well advanced, and will shortly be completed; and the trustees of the British Museum of Natural History, at South Kensington, have accepted the offer of the monument itself, which will be executed in marble and ultimately placed in the central hall of the institution, near that of Darwin. The design for the Royal College of Science medal has been obtained by prize competition among persons resident in Great Britain and Ireland, and the selection has fallen upon that of Mr. L. Bowcher, who has produced a highly-successful work of Art, and is now engaged upon the dies.

AMBITION to have new and palatial offices has placed the Commission of Sewers in a very unenviable position. That body determined to spend £40,000 on them, and leased from the Corporation a site in Basinghall Street at £900 per annum. But the unexpected happened. When the new building had reached the first floor a protest was raised by the owners of offices opposite, and the Commission was at once confronted with the question of "ancient lights." An injunction was applied for and granted, and work was brought to a full stop. For several months nothing has been done, and in consequence the contractors entered a claim for compensation, which has just been settled by arbitration, the

award being £2,738. The sum of £3 16*s.* 2*d.* per day has also been fixed by the arbitrator as payment due to the builders until work is resumed or the contract ended. The matter is further complicated by the fact that the Corporation has promoted a Bill for the dissolution of the Commission of Sewers as a separate and distinct body, the object being to invest the former with the municipal powers at present possessed by the latter. In the meantime the Sewers are behindhand with their rent. The original building plans have been modified considerably, in order to bring the new offices within the limits of the injunction, and it is expected that in the course of a few days the work of rebuilding will be resumed.

A PLEASANT little collection of landscape paintings is now to be seen at the Dudley Gallery, the work of six artists, Messrs. R. W. Allan, J. S. Hill, Hope McLachlan, Peppercorn, Leslie Thomson, and E. A. Waterlow. The pictures, various in merit, are marked by a certain likeness of feeling and intention, and the general impression is, as it should be, one of unity and concord. Were it not for the catalogue it would not be always easy to tell the work of one painter from that of his neighbour, though to obviate confusion each artist has hung his own productions in a group by itself. The largest picture is one of Mr. Waterlow's, which won a prize medal at Berlin last year, and is an able and solid piece of landscape work, painted in a higher key than most of the other canvases here. The subject, a wide stretch of river in bright sunlight, whose locality it would not be difficult to identify, is also more likely than most of the others to please the popular taste. But Mr Peppercorn, in this friendly rivalry of fellow-workers, will be admitted to take the first place. He exhibits ten pictures, mostly subjects of the kind already familiar to the admirers of his work—sombre, meditative pastorals, showing strongly, no doubt, the influence of Corot, but without Corot's airy, dreamy grace and lightness—Corot's, as it were, which have crossed the Channel and have caught, a Frenchman might say, something of Britannic spleen.

IN Leeds, twenty years ago, a destructor was erected on a site in Beckett Street, and since that time others have been constructed in Armley Road and Meanwood Road. As the one at Beckett Street is now somewhat out of date, it has been decided to have it re-modelled, and plans for this purpose are being prepared by Mr. T. Hewson, City Engineer. There will be no difficulty, we are informed, in effectively dealing with the solid refuse of the city during the time that the Beckett Street destructor is undergoing alteration. What refuse cannot be treated at Armley Road and Meanwood Road will be tipped on suitable ground, of which the Corporation has ample on the outskirts of the city. The cost of dealing with the refuse at the destructors is estimated at about 2*s.* per ton; the cost of tipping at 1*s.* per ton.

GREAT progress is being made with the large group of prison buildings at Fresnes, a borough in the southern suburbs of Paris beyond Sceaux. These constructions are intended to replace the old city gaols of Mazas, Sainte-Pélagie, the Grande-Roquette (outside which executions take place), and the Central Infirmary of Prisons. The works were begun over a year back, and the buildings will not be finished until the early part of 1898. The cost is estimated at 10,600,000 francs, or £424,000. Fresnes is a somnolent old place, and, like its neighbour Rungis, would seem to be at least 50 miles from Paris, although it is comparatively close to the fortified zone of the city. When the new prisons are built, those Parisians who want to see the guillotine at work will have a comparatively long journey to make.

GREAT BRITAIN can no longer boast of possessing the longest railroad bridge in the world. The bridges over the Tay and the Forth have lost their pride of place, for a new bridge over the Danube at Czernavoda has just been completed. The length of this structure, exclusive of its approaches, is 13,325 feet. The principal spans crossing the river itself, are respectively 620 feet and 455 feet. The remaining spans run over some nine miles of ground, which is for a lengthened period of the year subject to inundations. The height of the bridge at the centre of the main channel of the river is sufficient to allow the biggest vssels frequenting the Danube to pass under even at high water. It will be remembered that the length of the "Tay brig" is 10,725 feet, and that of the Forth 7,800 feet. America has the Mississippi Bridge, which is 10,600 feet.

AMONG the local supporters of the Dean and Chapter in their rebuilding scheme is the Mayor of Peterborough. It may be well, therefore, to state that his Worship is a builder by trade, and that he is to have the job in question. He is, we should add, very well known as a Church builder, and indeed his firm has, we believe, carried out most of the Cathedral restoration work in the country for the last 30 or 40 years. He was also the builder of the Royal Holloway College, the Church House, and Glasgow University. This is the fourth year of his office as Mayor.

WHAT may possibly prove to be the preliminary step towards adopting the electrical overhead system of tramway haulage for the whole of Leeds was taken at a meeting of the Leeds Tramways Committee on the 11th inst. It was reported that the rails on the Headingley, Chapeltown, and Hunslet tramway routes were in a bad state of repair, and required renewing. This raised the question as to what kind of rails, in view of possible eventualities, should be laid down. After a lengthy discussion, the committee resolved to relay the tram lines, on the three sections named, in such a way that they can hereafter be used for either electric cars, or for the ordinary cars, drawn by steam engines or horses. By this resolution, the committee does not bind itself to adopt any particular method of haulage; all they do is to prepare for a form that may be adopted. It is estimated that about 3,000 tons of rails will be required. The question of where these are to be purchased was left over for consideration to another meeting.

IN the Surveyor, of January 8th, which is an excellent number, is an addition to the usual number of pages in the shape of a twenty-page supplement devoted to the municipal works projected for 1897 by different local authorities in the United Kingdom. There is an interesting article on asphalte carriage-way pavements in America, with illustrations. Other articles are—"The Legal Precedents of 1896 in Relation to Municipal Engineering," by J. B. Reignier Conder; "A Survey of the Legislation of 1896 in connection with Municipal Engineering"; "Our New Paving," by G. Manville Fenn; and "The Collection and Removal of House Refuse." It is well printed, and forms quite a bulky volume.

THERE are two errors that threaten Art—the theory that it is an imitation of nature, and the theory that would make self-worship its ruling law, and has created the formula of "Art for Art's sake," says the Echo. The first would deprive it of all spontaneous individual life; the second breaks the link that binds it to the universe, and leaves it to wander like a sick man's dream, guided by no law, destitute of all mission or aims, at the bidding of every new sensation. The first theory renders Art useless, the second dangerous; both condemn it to sterility. Art does not imitate, but interpret. It searches out the idea lying dormant in the symbol, in order to present the symbol to men in such form as to enable them to penetrate through it to the idea; were it otherwise, what would be the use or value of Art? Nature is for Art the garb of the Eternal. The *real* is the finite expression and representation of the true; *forms* are the limits affixed by time and space to the power of life. Nature, reality, and form should, all of them, be so rendered and expressed by Art, as to reveal to mankind some ray of the truth—a vaster and profounder sentiment of life. The opposite theory reduces the poet to a level with the photograper. Art is not the fancy or caprice of an individual. It is the mighty voice of God and the universe, as heard by the chosen spirit, and repeated in tones of harmony to mankind. Should that omnipotent voice strike too directly upon the mortal ear, it would stun and suspend all human action, even as Pantheism crushed the ancient Oriental world. Art is no isolated, unconnected, or inexplicable phenomenon. It draws its life from the life of the Universe, and with the Universe it ascends from epoch to epoch towards the Almighty. It owes its power over the souls of men to that collective life—even as the trees and plants draw their life from earth, the common mother; and its power would be destroyed should it attempt to forsake its source.

HISTORICAL students have often been grateful to Mas-Latrie, but probably not many who have had recourse to the long array of volumes bearing his name in the British Museum, ever thought of him as a living man. Count Mas-Latrie has only just passed away, however, at an advanced age. His "Chronique des Papes, des Conciles Génévaux, et des Conciles de France," was published so long ago as 1837. Another monumental work, the "Tresor de Chronologie, d'Histoire, et de Géographie du Moyen-âge," is of much later date. His History of Cyprus under the Lusignans, and the Treaties of Peace between the Mohammedans of North Africa and the Christian Powers are less known, but they are mines of information on the subjects of which they treat.

THE progress of Harrogate during the past twenty years is remarkable, and has witnessed many important improvements. Miles of paved and asphalted footpaths have been provided. The cost under this head has been not less than £20,000 during the period. Including the acquisition of the rights of the commoners on the Stray, a similar sum has been expended on parks and pleasure grounds. The electric light has been provided at a cost of £25,000. Upon a farm and works for the disposal of the sewage of the town from £30,000 to £40,000 has been spent. The extensive new baths, with the pump-rooms, and the conservation of the waters, will entail an expenditure exceeding £100,000. In addition to the cost of maintenance of streets and public buildings, the capital outlay from 1877 to 1897 upon improvements completed and in hand has been not far short of a quarter of a million sterling. The finances have meanwhile been put on a satisfactory basis. The borough had no irredeemable debt, and the Corporation was able, a few years ago, to consolidate the debt, pay off all loans at high interest, and borrow money at less than 3 per cent. The amount of the debt at the audit in March last was £190,000, but the provision of the electric light and the erection of the new baths will entail a considerable increase of it. The estimated value of the town's property is more than double the amount of the debt, and the revenue from it will no doubt continue to increase with the growing popularity of the town. It is impossible to give the number of visitors annually, but it is computed that the number of those who take baths and drink the waters has increased threefold during the twenty years. More than £11,000 was paid for baths and waters last year, and this represents from 50,000 to 60,000 baths, and from 200,000 to 250,000 daily drinkers of the waters. The borrowed capital is to be repaid in twenty years, so that by 1925 the existing properties will be free from debt. At present the Corporation has other schemes under consideration. These include the acquisition of the waterworks and the Spa Concert Rooms estate. In order to protect certain mineral springs, it is likewise considered desirable that the town should possess the land adjoining, and it is further urged that the area of the recreation grounds might with advantage be increased. The present municipal offices are not all that could be desired, and no doubt the erection of a Town Hall, for which a site has been provided, will some day be seriously considered. The extensive improvements at the railway station by the North-Eastern Company should prove of advantage, and the proposal to provide an alternative route to Leeds, by utilising a portion of the line from Leeds to Wetherby, has been seriously considered.

THE late Prince Henry of Battenberg Memorial Fund, is being devoted to the restoration of a portion of the ruins of Carisbrooke Castle, I.W. The work, which has already been commenced, will consist in remodelling the gatehouse, and transforming the guard-room and portcullis chamber into a museum for the reception of objects of interest associated with the history of the Isle of Wight and the Castle. The guard-room and portcullis chamber are at present roofless ruins, but they are to be covered with flat roofs, the floors are to be of English oak, and the whole of the work is to be carried out in a manner so as to be in character with the surroundings. The museum will measure 45 ft. by 20 ft., and there will be steps leading from the museum to the

turrets. An old plan of the Castle, bearing the date 1583, has been discovered, and it is intended to follow this plan in the restoration of the portion to which the memorial fund will be devoted.

THE new buildings which have been erected at the Sheffield Court House in Castle Street and Waingate, have just been opened for police business. Considerable extensions have been made to the old building, which, after years of service under the style of the Town Hall, is now to be known as the Court House. A site of 670 yards of land in Waingate has been leased by the Town Trustees to the Corporation for a term of 470 years, at an annual ground rent of £240, and upon this site the extensions have been erected. The new building includes an additional Court, about the same size as the existing large Court, and similarly arranged and furnished in oak, together with a solicitors' room and a room for consultation purposes, and a large corridor for waiting witnesses. All these rooms, together with the Court itself, are on the ground floor, and are entered from the far end of the hall, facing Castle Street. Additional offices are also provided for the Stipendiary Magistrate, the general body of Justices, and the Clerk to the Justices. The entrance to the building from Waingate, to be used by the magistrates, has been enlarged and greatly improved by the building of an entrance hall and a more imposing staircase. There are 20 lock-up cells for prisoners under the court, together with two large cells for the accommodation of prisoners awaiting trial. This portion of the building is in easy communication with both old and new courts, while a covered van-way passing under the court and through the building from Waingate to Castle Street admits of prisoners being removed from cell to prison van in privacy. Careful arrangements for ventilating the new building have been provided, and the heating apparatus is of an improved description. The electric light is installed throughout. In almost every respect the new court is fitted up on the lines of the old one. Before the building was commenced the Chief Constable and the Architects, Messrs. Flockton, Gibbs, and Flockton, visited the most recently erected courts and police cells in the kingdom, and came to the conclusion that the arrangements of the old city courts could not be improved upon. Between £17,000 and £18,000 is the estimated cost of the buildings, which have been designed in the simplest style, both externally and internally, in order to harmonise with the old premises. Messrs. Flockton, Gibbs, and Flockton are the Architects, and the contracts have been carried out by Mr. James Fidler, builder, Eckington; Mr. J. H. Lilleker, joiner, Queen Street; Messrs. Corrie and Sons, plumbers, Carver Street; Messrs. C. Chadwick and Sons, plasterers and slaters, Victoria Street; Messrs. Renton, Gibbs, and Co., of Liverpool, the heating; Messrs. Longden and Co., of Furnace Hill, the wrought-iron gates and grilles; and Messrs. Johnson and Appleyards, the furnishing.

THE Royal Society of Antiquaries of Ireland held its annual general meeting in the Royal Dublin Society's premises last week. The annual report stated that the roll now contains the names of 200 fellows and 1,160 members—in all 1,360 names, being 50 more than at the close of the preceding year. The quarterly meetings for the year 1897 have been fixed as follows:—The annual general meeting in Dublin, on Tuesday, the 12th of January; the second in Kilkenny on Easter Monday, 19th April; the third in Munster in June or August; and the fourth in Dublin in September. In connection with these meetings there will be an excursion to Drogheda on 13th January, the day following the annual general meeting, and excursions will be arranged in connection with the other meetings. On the 1st of December the following nominations were duly made for the honorary offices now falling vacant, in accordance with the rules of the society:—For president, The Right Hon. The O'Connor Don; for vice-presidents, Thomas Drew, R.H.A. (retiring president), for Leinster; W. J. Knowles, for Ulster; the Rev. F. M. ffrench and the Right Hon. A. H. Smith-Barry, for Munster; and Edward Martyn, D.L., for Connaught. For seats on the Council:—Deputy Surgeon-General King, M.A.; W. R. Mollok, Fellow; and J. J. Digges La Touche. Also as honorary president:—His Grace the Duke of Devonshire, K.G., Fellow. As the nominations have not exceeded the number of vacancies no ballot will be necessary. Papers were read as follows:—By Mr. Knowles, "On portion of an ancient harp from the Crannoge of Carncroagh, County Antrim"; by Dr. Frazer, on "Irish Gold Ornaments"; by Rev. Mr. Lett, on "The Dorsey, County Armagh"; by Major-General Stubbs, R.A., on "The Monastic History of Dromiskin, County Louth."

A DETERMINED effort is to be made to preserve the Church of St. Mildred, Bread Street, notices for the demolition of which have been served by the solicitors of the Central London Railway Company. A similar effort, it will be remembered, was successfully made on behalf of St. Mary Woolnoth, Lombard Street, the existence of which was threatened by the same railway. The original St. Mildred's was destroyed by the Great Fire, and subsequently it was rebuilt.

M. FLOURENS, an expert and enterprising civil engineer, has for some time past been endeavouring to persuade the Russian Government to undertake the previously mooted project of connecting the Baltic with the Black Sea by a ship canal. The preliminary surveys of the route and approximate estimate of the cost of construction have already been made, and M. Flourens is now seeking a concession for a French syndicate which is anxious to carry out the scheme. It is still an open question whether the Government will proceed with this project during the present century, or, if they do, whether they will give the concession to a foreign country. In principle, it is said, the Tsar has practically resolved upon the eventual consummation of this highly important inter-oceanic waterway, which would largely disrate the presen strategetic character of the German North Sea Canal.

THE excavations that have taken place at the ancient Caledonian hill-fort discovered about a year ago on the summit of the Hill of Dumbowie, in the valley of the Clyde, are now concluded. Many of the finds have been of unique value, especially in the significance of their relations to palæolithic and neolithic man. Antiquarians place the date of the fort at a very early pre-Roman period, and the productions found in it, as well as the type of structure, make it one of the most valuable of recent antiquarian discoveries. Among the principal objects found were stone grinding mills, spears, arrow-heads, hammer-heads, harpoons, scrapers, fire-stoves, an anvil, chisels, an anvil or chopping block, cup and ring, ornamental stones, trinkets, and gravers, the bones of the great red deer, badger, horse, wild boar, rabbit, and hare, and the shells of the oyster, cockle, mussel, and limpet. No crockery of any kind was discovered, nor a vestige of any metal or wood; but great masses of charred bones, charcoal, and organic earth go to prove the occupation and habitation of the fort for a long period. The fort is 32 feet in diameter, nearly circular, with walls 13 ft. 9 in. thick, built of freestone, without lime or earth, and having a doorway to the east, with two guard chambers, one on each side. Since the conclusion of the operations, within the last few days, the fort has been turfed over and restored to its former condition. Following up the antiquarian research of the Clyde valley, the Helensburgh Society has, says the Daily Graphic, made a beginning on Chapel Hill, a knoll near the village of Kilpatrick, long associated with the end of the historic Roman wall on the western side. This work is being regarded by Scottish antiquarians with great interest, as it is expected to settle the long-disputed point as to the termination of the Roman wall, and also as to the designation of the knoll as Chapel Hill. The site is on the confines of the traditional birthplace of St. Patrick.

A MR. ROGER, the owner of three shops, with houses and a small piece of land, fronting the Kentish Town Road, has been awarded £5,852 compensation by a jury in the London Sheriff's Court, owing to the property having been acquired compulsorily by the Midland Railway Company.

AT a meeting of the Sewerage Committee of Aberdeen Town Council, it was decided to recommend that £10,000 be expended in laying a new sewer between the foot of Portland Street and one hundred yards south of the Victoria Bridge, taking in the area on which the curing yards are built.

PLYMOUTH AND WORKMEN'S DWELLINGS.

AS it is now proposed to stop, at any rate for the present, the erection of more dwellings on the Corporation estate at Prince Rock, it may be useful to supply a few extracts from an article which recently appeared in the Lancet, on "Sanitary Reform at Plymouth." "The most important action taken by the municipality has been the purchase of the Prince Rock Estate, comprising 29½ acres of land on the outskirts of the town. Here 62 model cottage artisan dwellings have been built, and will be open to tenants in a few weeks. The authorities there will be able at once to demolish a condemned area. . . . Rarely have been seen such deplorable, ruinous, overcrowded, damp, dark, and noisome dwellngs. The houses which actually stand condemned represent but a very small proportion of the unhealthy dwellings of this town, but it is proposed to condemn and to destroy only in due proportion with the building and completion of other and better dwellings. To replace these horrible rookeries the municipality will gradually erect a new town on its estate at Prince Rock. Already many streets are laid out and sewers built. The new cottages are well worth a visit, if only to compare these structures with the jerry-built cottages that may be found in the immediate neighbourhood. The municipal cottages have, on the ground floor, a front sitting-room with a fireplace provided with a low, slow-combustion grate. Behind there is the kitchen with stove and copper, and a sink by the window discharging over a disconnecting gulley outside. A special narrow window in the store cupboard will enable provisions to be kept fresh. There is a small bedroom upstairs without a fireplace, and two larger bedrooms with fireplaces, and each has two well-built cupboards for hanging clothes. Each of these cupboards has a separate door. The windows have double rebated sills, which prevent draughts and add to the solidity of the structure. The bearings or pulleys for the ropes of the window sashes (generally made of cast iron, and which, therefore, tend to rust and to break) are of gun-metal, and will last any length of time. All angles or sharp corners are rounded off and made of Portland cement, instead of the soft wood or more fragile plaster generally employed. There are no breakable plaster mouldings, but strong wood beading. The work is all plain, but of the best and most substantial quality. The water-closets are outside, and the soil-pipes are trapped and ventilated throughout. Cottages thus built naturally cost more than the jerry-built structures which so many persons are compelled to inhabit; but there will be much less money spent for repairs, and the habitations are thus rendered more healthy and comfortable." It may be added, that the contract for the dwellings erected has been rather under £15,000. The roads and main drains on the estate have been made under the direction of the borough surveyor.

A WELL attended meeting of ratepayers of Colne has passed a resolution in favour of promoting a Bill in Parliament for the construction of two compensation reservoirs in the Wycollar district costing £100,000, providing a recreation ground, the construction of a new road through the North Valley, purchasing a refuse destructor, and a new cattle market and abattoirs.

AFTER negotiations lasting over a year, the difficulties have been adjusted between the Belgian Government and the syndicate responsible for the conversion of Brussels into a seaport. At a meeting between the representatives of both sides, M. De Smet de Naeyer, Minister of Finance, declared himself ready to fix the new docks as originally proposed near the Allee Verte in the north-east quarter of the city. The work will be shortly commenced.

THE Crum Memorial Library, Thornliebank, which was erected by public subscription in memory of the late Mr. Alexander Crum, has been opened. The library occupies a site given free by the Thornliebank Company, Limited, who have also provided a beautiful garden terrace in front. About £2,000 was subscribed, and £1,200 devoted to the building of the library, the remaining £800 being set aside for the provision of an annual income.

PETERBOROUGH.

ATTITUDE OF THE ANTIQUARIES.

THE Society of Antiquaries of London has issued a long statement *apropos* the action of the Society for the Protection of Ancient Buildings for the preservation of the west front of Peterborough Cathedral. A specification showing not only how the northern gable and its supporting arch can be repaired, but how the same principle can be applied to the strengthening and securing from further dilapidations the whole of the west front, is appended to the statement, and bears the signatures of Thackeray Turner, W. R. Lethaby, Detmar Blow, Philip Webb, J. T. Micklethwaite, whilst amongst those who have not examined the west front of Peterborough Cathedral from the scaffolding, but are of opinion that the methods proposed in the specification are eminently practical, and are such as we should recommend for repairing work of this nature are Robert Weir Schultz, F. W. Troup, Edward S. Prior, F. Inigo Thomas, Halsey Ricardo, Mervyn Macartney, P. Morley Horder, J. A. Cossins (Birmingham), H. Wilson, Ernest Newton, E. Guy Dawber, C. R. Ashbee, J. J. Stevenson, F.R.I.B.A., Chas. H. M. Mileham. The history of the controversy is recapitulated in the Society's statement, and in alluding to a few suggestions made by the S.P.A.B., "as to the way in which the more important repairs should be undertaken after the foundations have been secured," it states:—Premising that everyone would agree that "nothing should be done (which could by any effort be avoided) to alter" the beautiful appearance of the front, the Society suggested that, besides the addition of the metal ties proposed by Mr. Pearson, the fractured spandrels of the great arches should be made strong and secure. This cannot well be done from the outside, nor by grouting alone, but by gradually removing from behind, by small sections at a time, the disintegrated rubble walling, and building up the holes back to the facing stones with sound bonding material. By this plan, the disintegration of the walling could be made good without *disturbing the facing stones*, an important consideration. "Shoring, strutting, and in every other way preparing to avoid accident," are, of course, pre-supposed. It will be seen that by the method here suggested, only an outline of which has been laid before the Dean and Chapter and their Architect, the present

APPEARANCE OF THE FRONT WOULD BE ABSOLUTELY RETAINED,

and no trace of such a repair would be visible externally. The foundation of the northern of the two detached piers should first receive particular attention, says the specification, though the southern pier would also have to be looked to in the same way. With these piers is of course included the strengthening work of the interposed porch.* The difficulties of

STRENGTHENING OLD FOUNDATIONS

are necessarily considerable; still, in this particular case, they are less so than might have been supposed, for the weight of material balanced on the pier in question is comparatively trifling, and the opportunity afforded by the open character of the situation would allow of ample security being taken to avoid misadventure; but these precautions should be both extensive and particular. Before in any way opening or disturbing the ground about the foundation of the northern of the two piers, a carefully designed framework and centering of timber to this pier and its northern arch would have to be set up, which should effectually support and sustain the superimposed weight of the work resting on the capital of this pier and the pier itself. Centerings should also be at once applied to the other two arches, for the purpose of steadying them while dealing with the northernmost pier and arch. Care must be used in preparing heavy timber cills properly arranged, and bedded on the ground level, on which the timbers supporting the cradling and centering are to be erected, bearing in mind that sufficient space be allowed for getting at the foundations of the pier itself and of the porch attached to it. The pier in question would then have to be in every fit way supported, secured, and protected from injury, as also the pier, archway, and window opening of the porch itself. Two continuous lines of horizontal timbering would have to be applied extending the whole length of the front on the inside of the narthex†; one against the western wall‡, the other directly against the piers. They should be supported on upright and diagonal beams, probably at the level just under the capitals of the pier shafts. This horizontal beam work inside the narthex should be in right relation to a parallel beam and support work, of the same kind, on the outside; three longitudinal beams in all. These should be connected by cross and diagonal timbers and iron tie-rods, so as to become one continuous stiffening of the whole front of the building. The centering to the ribs of the vaulting of the narthex would also have to be made in like manner, and, with the centerings of the arch itself, be supported from the horizontal framework described above. As we attach great importance to every part of this supporting framework and centering, it would not only have to be carefully designed, but should be adapted to the exact peculiarities and irregularities of the work against which it would be set up. It must be clearly understood that the whole of the foundation of this pier, and that of the attached porch, must be

COMPLETELY UNDERPINNED;

for, if only parts of it were so treated, a very mischievous difference in the support to the work above would occur, and cross strains be set up which would gravely endanger the substance of the main pier itself. We now come to the very important point in connexion with the present repair of the front, the manner in which the great arches can be safely and securely strengthened, *without having recourse to rebuilding*. It has already been noted that the internal parts of the walling of the northernmost arch have expanded from east to west during the slow settlement of the detached pier below; and in a lesser degree this is probably the case in the other arches also. The substance of this walling must therefore, to a greater or less extent, be in a state of disintegration, and its removal and replacement by sound masonry are essential to the permanent stability of the narthex. The manner in which this may be done without risk or danger either to the building itself or to the men engaged in the work, is as follows:—in the rubble walling, which has no ashlar facing at the back of the arches, beginning at the lowest point, a hole or tunnel, just wide enough for a man to work in, would be slowly driven by short sections at a time. The sides and roof of each section would be made absolutely secure by timber framing before beginning the next one, and the hole would be gradually carried through the wall to the back of the facing stones of the wall itself. The hole would in no case exceed six feet in length. Any possible danger from the running of disintegrated material would be met by the prompt application of short lengths of 3-inch planking, thickly coated with wet clay, and held in position by workmen while props with expanding screws are applied to the ends, so as to press each plank well home and keep it in place. Moreover, only one tunnel would be made at a time, and this would be filled and pinned up (with sound material, as hereafter is described) before another one is begun; it would therefore bear but a small proportion to the area of the wall bored into. The new filling would thus support the work above it until that in its turn was removed. Clearly, when doing this underbuilding in the spandrels of the arches, the chief danger in underpinning foundations, namely, the great superincumbent weight, would practically be nonexistent, owing to the comparatively slight structure of the gable above. The only danger to be faced, the possibility of the sides or roof of the holes falling in, would be effectually guarded against by the precautions already described, The process of

CONSOLIDATING THE WALLING

of the west front, above the piers and overlying the arches, is simplified by the great thickness of the walling at this part of the work under consideration; and the foregoing indication of a very complete system of timber support to all the weight and thrust of the work above the springing line of the arches, shows that any disturbance caused by the execution of the work would be met at all points by the counter support. Extra support in detail would have to be supplied from time to time, so as to make sure that no further dislocation of material would happen, as the supporting framework would be brought into action as soon as the slightest movement took place. The principle underlying this working by tunnel into the walling from the inside, at the back of the ornamental ashlar stonework on the outside, is that of applying horizontal bands of very hard material at certain distances apart vertically, so as to become, as the work proceeds upwards from the springing line of the arch, something analogous to "cantilever" construction used in modern iron bridges; that is, a corbelling out right and left from the central axis of the piers below till the bands from opposite sides meet over the centre of the arch between its two piers. The bands of hard horizontal material thus act as ribs, and the filling in between them as support to the ribs. The kind of materials to be employed in re-coring and bonding together old walling is a very necessary condition for ensuring permanent success. As is well known, underpinning, in the ordinary sense, is done at the base of the walls, and mostly underground, the materials used being either sound brick or tough stone, with Portland cement and coarse, clean sand for the mortar, and thin material, such as tiles or slates, for pinning and wedging. Doubtless, as the work proceeds from time to time, at the different parts of the walling, any scheme set down on paper now would have to be modified to suit the peculiarities of the various works as they become disclosed; caution while each part was being dealt with would have to be insisted on, and special contrivances put in practice to suit all situations.

* The Interposed Porch, a construction built in between the two piers, about the end of the fourteenth century, to steady and stiffen these two important supports.

† The Narthex, which is a triple-arched vestibule standing some 16 or 17 feet (inside measurement) in front of the west wall of the Church, carried by two triangularly planned piers, and supported by two stair turret wings at the north and south angles.

‡ The Western Wall of the Church to which the narthex is attached.

We have received a copy of a circular, which we give below in full at the desire of the signatories.—ED.

To the Dean and Chapter of Peterborough,—We, the undersigned, Architects and Surveyors of Leicester (being the largest town in the diocese), having full confidence in the judgment of your Architect, Mr. J. L. Pearson, R.A., and knowing, from what he has done in the past, that any work he does to the west front of Peterborough Cathedral will be of the most reverent and conservative character, beg to forward a subscription of £71 towards the fund you are raising for the restoration of this unique portion of the Cathedral of our diocese.

Mr. R. J. Goodacre, F.R.I.B.A.
Mr. J. Goddard, F.R.I.B.A.
Mr. J. B. Everard, F.R.I.B.A.
Mr. S. Harrison, F.R.I.B.A.
Mr. J. Goodacre, F.R.I.B.A.
Mr. A. E. Sawday, F.R.I.B.A.
Mr. C. Baker.
Mr. S. P. Pick, A.R.I.B.A.
Mr. A. T. Draper, F.S.I.
Mr. H. A. Roechling, A.M. Inst. C.E.
Mr. W. E. Keites.
Mr. W. H. Simpson, F.S.I.
Mr. F. Seale.
Mr. H. C. Taylor, F.S.I.
Mr. A. H. Hind, A.R.I.B.A.
Mr. T. W. Pettifor.
Mr. E. G. Mawbey, Borough Surveyor.
Mr. W. T. Topott.
Mr. T. B. Bown.
Mr. A. S. Gimson.
Mr. W. A. Catlow.
Mr. W. M. Cowdell.
Mr. J. W. Simpson.
Mr. J. Wigg.
Mr. A. E. Harvey.
Mr. J. Lancashire.
Mr. W. T. Grewcock. A.R.I.B.A.
Mr. F. B. Cooper, A.R.I.B.A.
Mr. A. Herbert.
Mr. W. E. Moore.
Mr. H. F. Traylen.
Mr. R. W. Bedingfield, A.R.I.B.A.
Mr. G. Brown.
Mr. J. T. Blackwell.
Mr. W. Keay, A.S.I.
Mr. C. Ogden.
Mr. P. C. Mawbey.
Mr. R. J. Stephens.

Professional Items.

BRADFORD-ON-AVON.—A building for the purposes of a Technical Institute for Bradford-on-Avon and neighbourhood has just been completed in Junction Road. The total cost is about £3,900. The frontage is 75 feet to Junction Road, with a depth of 45 feet. The style is a form of English Renaissance. From the centre of the hall a wide staircase runs to the first floor, stairs beneath communicating with the heating chamber and store rooms. On the left of the hall is the women's department, fitted with a suitable range for cooking, with a scullery and store-room adjoining. On the first floor is a chemical laboratory, and the lecture theatre is also on the first floor, in the centre of the building, and adjoining the chemical laboratory, provision being made by specially ventilated fume closets for carrying off the gases emitted from chemical experiments. There is also, on the first floor, a large room to be used for the teaching of drawing, building construction, and other technical subjects. The cooking room and lecture theatre are to be fitted with raised galleries for the convenience of the students, and special arrangements are made for efficient ventilation and heating.

CARDIFF.—Messrs. J. P. Jones, Richards, and Budgen, Architects, Cardiff, have prepared a new plan for laying out the Cathays Park, provided it can be acquired for the erection of municipal and other public buildings. They divide the park by two boulevards, running north and south, and two cross roads, into six sections. One of the boulevards, which runs parallel to the North Road, is practically formed already by an avenue of trees, and on the plot between it and the North Road it is proposed to place, first (commencing from the town end) the Town Hall, then a picture gallery, and then the technical school and the boys' intermediate school. On the Park Place side (coming from the southern end) will be a national Welsh museum, the university college, the theological college, the offices of the Welsh University, and the girls' intermediate school. This arrangement will leave the centre of the park available for winter gardens or other means of recreation which the Corporation may decide upon.

CARLTON COLVILLE.—Last week new Church schools were opened at Carlton Colville. Plans were by Mr. F. W. Richards, Architect, of Lowestoft, and the contract was entrusted to Mr. W. J. Searle; Mr. A. G. Beckett executed the woodwork, and Mr. James Curtis, of Oulton Broad, the plumber's work. The school stands on high ground on the Carlton Road. It is built of red brick, black pointed, and relieved with white brick dressings. The interior is 96 ft. in length, and 22 ft. in width, with an average height of 17 ft. 6 in. to the ceiling. The room is divided into two by Stone's patent half-glass swivel partitions. It is well lighted, and ventilated by Shorland's patent ventilators. The warming is provided for by approved school stoves, supplied by Messrs. Waller and Smith, of Lowestoft.

DRIFFIELD.—At the last meeting of the Driffield Rural District Council, the sanitary committee presented a report respecting the water supply of Wetwang. The committee had had an interview with Mr. Fairbank, civil engineer, of York, who had drawn up a second scheme for providing for a storage of 30,000 gallons of water, the power to be by a windmill. An estimate given showed that the total cost and annual expenditure of the two schemes was as follows:—"A" scheme: total cost £1,036 0s. 10d., annual expenditure £65 18s. 7d.; "B" scheme: total cost, £1,052 14s., annual expenditure £61 7s. 7d. After some discussion as to the details of each scheme, it was decided to submit "B" scheme to the Wetwang Parish Council for consideration.

DUNDEE.—In the erection of the Parish Church Hall a slight alteration is to be made upon the line of the street at Mid Kirk Style, necessitating the removal of the old town well, which has for nearly 70 years occupied a position in the Church wall at the corner of Tally Street and Mid Kirk Style. When the specifications for the hall were framed a clause was inserted reserving to the city the stones of which the well is built, and the interesting suggestion has now been made that the well when removed from its present site should be erected in Dudhope Park and used as a drinking fountain.

GLASGOW.—An electric lift, capable of carrying 15 passengers, is now being fitted up at the Kelvin Bridge Station of the new Glasgow District Subway. The work is in the hands of Messrs. Easton, Anderson and Goolden, Limited, of Erith, who were the makers of the large lifts now in constant use at the stations of the Mersey Tunnel Railway.

HALIFAX.—A new Infants' Board School, at Caddy Field, Halifax, was opened on the 10th inst. Mr. F. Smith (chairman of the Sites and Building Committee), who took a leading part in the ceremony, was presented with a silver key by the Architect (Mr. Joseph F. Walsh). The total cost of the building and site was £3,200. The plans adopted were selected in competition, the original scheme providing for 315 infants. At present only a portion of the scheme has been carried out, to accommodate 165 children. The premises included a central hall, or assembly room, 41 ft. by 22 ft. 6 in., three class-rooms, 18 ft. by 16 ft., and a teachers' room. The whole of the works have been carried out by local firms, with two exceptions. The contractors were Mr. I. Firth, mason; Messrs. F. Greenwood and Son, Queensbury, joiners; Messrs. John Naylor and Son, plumbers; Messrs. Rushworth and Firth, slaters and plasterers; Messrs. George Greenwood and Son, concreting; Mr. John Berry, iron and steel work; Mr. T. Rushton, painting; Messrs. P. M. Walker and Co., ventilating; the Westminster Flooring Company, London, wood block flooring; and Messrs. William Truswell and Son, Sheffield, heating apparatus.

The extensive buildings at Halifax, to be known as the Warley Road Board Schools, were opened last week. The site of the building has cost nearly £1,200, and the building and site together £13,200. The entire cost was £16,000. Provision is made for the three departments—boys, girls, and infants—furnishing accommodation for 1,132 scholars.

KIRKCALDY.—Messrs. Curror Brothers are about to erect new malt-barns, etc., at their works, Victoria Road. Messrs. Swanston and Legge are the Architects.

LIVERPOOL.—At the recent fire at the Court Theatre, Max Clarke's patent protected curtain, for the third time, kept the fire confined to one side of the proscenium wall, showing plainly the advantage of such a means of closing the proscenium opening.

LOUGHBOROUGH.—Through the resignation of Mr. A. W. Cross, who has obtained an appointment at King's Norton, Birmingham, the Loughborough Town Council invited applications for the post of Borough Surveyor. In response, 78 applications came in, and the following six applicants were requested to attend a meeting of the Council, sitting as a General Purposes Committee, viz.:—Mr. A. H. Walker, chief assistant to Messrs. G. and F. W. Hodson, Loughborough; Mr. F. Worrall, engineering assistant, borough of Leicester; Mr. F. D. Sharpe, resident engineer, Loughborough section, M. S. & L. Railway extension; Mr. W. White Cooper, engineer and surveyor, District Council, Bedlington; Mr. H. J. Weaver, assistant city surveyor, Gloucester; and Mr. J. S. Hendry, chief assistant engineer and surveyor, West Bromwich.—After consideration the first-named candidate was appointed.

NEWCASTLE.—The new offices of the Newcastle and Gateshead Water Company, situate in Pilgrim Street, have just been opened. Mr. S. D. Robins was the Architect.

PAIGNTON.—The new schools recently opened will accommodate 400 girls, and have besides a capacious central hall, commodious class rooms, and a spacious playground, with every sanitary and other convenience complying with the requirements of modern times. The total cost has been about £5,000. Messrs. Bridgman and Bridgman were the Architects, and Messrs. Rabbick the builders.

SWANSEA.—The ceremony of laying memorial stones of a new Welsh Congregational Chapel, now in course of erection in Henrietta Street, Swansea, took place on the 11th inst. The Church, which has been erected to supply the place of Capel Seton, in High Street, is of Romanesque style of Architecture, and it is built of native stone, the dressings being of Bath stone. The interior will be decorated in accordance with the style of Architecture. There is a circular gallery and organ chamber, and, in the carrying out of the internal arrangements, all the latest appliances and conveniences have been taken advantage of. The Architect is Mr. W. Williams, of Wind Street, and the contractor Mr. Billings.

NEW SEWERAGE WORKS AT SOUTHAMPTON.

AN inspection recently took place of the works now in progress for the disposal of the sewerage of the Eastern districts. The new destructor was first inspected, and particular attention was paid to the working of the same, together with the forced draught, and the water-tube boilers from which the steam is to be supplied for operating the new sewage pumping engines, the fuel being the house refuse of the borough. The new engine-house is to have four compound condensing engines installed for lifting the sewage. The precipitating tanks have been completed up to the ground level. These tanks extend over a large area, having a capacity for the treatment of three million gallons of sewage in 24 hours. The system of treating the sludge by pressing in pneumatic sludge presses was also explained. The committee also visited the wharf adjoining (late Gannaway's), recently purchased by the Corporation as a site for the construction of additional tanks for the treatment of the sewage of the western districts, including that from Shirley and the Platform. The works have, notwithstanding the recent unfavourable weather, made good progress. Mr. Bennett, the borough engineer, has presented a report in respect to the various contracts completed or still in hand, of which the following is a brief summary. Contract No. 1: Refuse destructor, completed; working satisfactorily. Contractors, Messrs. Goddard, Massey, and Warner. Amount of tender, £2,669 4s. 6d.—Contract No. 2: Engine house, pump wells, &c. Contractors, Messrs. Jenkins and Sons. Amount of tender, £1,889. This contract is completed with the exception of the flooring, which is left until the engines are erected.—Contract No. 3: For engines and pumps. Contractors, Messrs. J. Simpson and Co. Amount of tender, £2,565. These engines are nearly completed, and the contractors are delivering the same.—Contract No. 4: Sludge press house, air compressing house, sludge reservoir, and sludge ejector chambers. Contractors, Messrs. Jenkins and Sons. Amount of tender, £2,337. This contract was practically completed on the 14th November, and now awaits the erection of the air compressors and ejectors.—Contract No. 5: Precipitating tanks. Contractors, Messrs. Playfair and Toole. Amount of tender £7,135. The contractors have made favourable progress with this section of the works.—Contract No. 6: Pneumatic machinery, comprising new air compressors, ejectors for Northam district, and sludge ejectors are well in hand. Contractors, Messrs. Hughes and Lancaster. Amount of tender, £4,898 16s. The contractors have commenced to deliver, and their men have arrived to erect the machinery.—Contract No. 7 comprises the storm-water drainage of the district shown upon the plans. The tender of Messrs. W. H. Saunders and Co., of Bournemouth, was accepted by the Council on the 9th December, 1896, for the sum of £3,250. The work has just commenced. The following work yet remains to be let by contract:—Main sewers, estimated cost of £12,500, which will be advertised in the early spring, the weather being more favourable for such work; engineering works, sludge-pressing machinery, outfall ironwork, &c.: this will be advertised at once.

THE fine old mansion, Dunipace House, located between Denny and Larbert, the residence of Mr. John A. Harvie Brown, the eminent naturalist, has been destroyed by fire.

ART AND SCIENCE AT LEEK.

MR. GEO. C. HAITÉ'S ADDRESS.

THE annual distribution of prizes to the students of the School of Art, Science, and Technology, at the Nicholson Institute, Leek, and the delivery of the presidential address by Mr. George Haité, R.B.A., of London, took place in the Town Hall, Leek, on the 11th inst. In opening his address, Mr. Haité said, "Few of even the largest manufacturing towns, if any, can boast of such an Institute to meet the inevitable and serious competition which must soon be reached in all the Art industries of Great Britain by foreign countries, and particularly in the manufacture of silk goods. Our generosity as a nation and our hospitality has brought, and will yet bring, with it a condition of things we must be prepared to accept, and equally prepared to meet. The Japs have been not only studying and acquiring knowledge of our language, our laws, and constitution, but our methods of warfare, but last, and not least, our

INDUSTRIAL ARTS AND MANUFACTURES.

They have been gauging what is called the "taste" of the buying public, soon to set up their own looms and supply the demand. They will send into our markets silk, plush, and tapestries, free from the Japanese flavour that, now the craze is over, would retard its sale in any quantity. They will send designs, colourings, and varieties of material of such a nature that it may well seem hopeless to compete against, and that, too, at a price which to us will be incomprehensible. We must either confess ourselves beaten, give up the industry, or put a prohibitive and protective tariff on all such imported goods, or, by the aid of these Schools of Art and Technique and the advantages of social education be prepared to compete with it. If anything can be done to meet it, nothing, it seems to me, is so likely to be so efficacious as the skilled training of our Artists and artizans. Fifty years ago, when it was realized how far behind we were in design and the skilled handicrafts and Art industries, the Government undertook to change the order of things, and the national schools of design were established, and became from the first schools of painting (which could very well have looked after themselves), and launched on the world a multitude of individuals "with a trained misunderstanding of painting," as Bret Harte puts it. As for design, the very term was forgotten, and the Department was called, as it still is, South Kensington. It was

A PITIABLE FAILURE.

It could hardly have been anything else; the governing body were carefully selected from the Army, Navy, and Civil Service. Even if the Department had been successful in design to its full measure, the problem would not have been solved, for what we required—what we still in a great measure require—are skilled artizans capable of carrying out the work in a satisfactory manner. The Art of design was then at its lowest ebb, and the workmanship equal to the standard, and it is useless to claim our position at the present moment as the result of State aid. The result has been gained by the efforts of men who worked on without recognition or any such aid. In those days one might almost say there were absolutely no iron workers, no *repoussé* workers, no leather workers. The silversmith's work was vitiated by traditional borrowed ornament, and the character of the metals used was utterly lost sight of and destroyed. Stained-glass efforts were triumphs of ignorance, and absolutely brutal in colour, fitness, and limitation of the material was ignorance, and all effort directed towards reproducing in a fragile material the delicacies of a painting. But fortunately, even in those days, a limited number of men were working in neglected devotion, but whose influence was to do more than all the wealth of a State could lavish; notably, E. W. Godwin and the late Bruce J. Talbot, followed a little later by Morris, Walter Crane, and others, still with us, anxious and willing to work for and with the State, if the representatives of the State in their wisdom will permit. Art in its broad sense is far too wide a question to touch upon, no matter how briefly, in the time at my disposal; besides, most phases of it have, during the last few years, received the attention of the ablest exponents. Therefore, my remarks will have reference chiefly to that phase of Art expression known as design, and particularly design for application. As design in its fullest sense it is true includes all Art expression, in its more restricted sense it may apply more closely and profitably to this institute than perhaps its sister Arts of Painting, Sculpture, and Architecture. I am well aware that there were numbers of able Artists and Art writers—and there may be still—who objected to Art as applied. They, however, lived in the glamour of the past when the condition of things was as diametrically opposed to what they are now as light to darkness. It is natural to desire the work of the hand only—be it in stone, iron, or the loom. Not that I object to good machine work where repetition of ornament is not only necessary but desirable, but because I feel that work should always be found for those ready and able to do it. The competition I have referred to will come not so much in the sister Arts of Painting, Sculpture, and Architecture, but in design and what is called applied Art, and have a far graver consequence, not only on our wealth but on our civilizing influence. It will be keener and more direct than it was 50 years ago, for the reason that our insular prejudice and patriotism, so characteristic a feature of those times, has gone, and gone for ever. The good time is no longer coming, it is here with us now, and we have to do and keep that place which it is admitted that we have now acquired as foremost in decorative and applied Art. The Royal Academy can no longer be pointed at as representing only a few of the more popular phases of Art. It numbers among its body representative men in all branches of Art expression. Herkomer, Swan, and Richmond are something besides Painters; Thornycroft, Gilbert, Onslow Ford, and Frampton are something besides Sculptors, and several are decorative Artists. And the time would have surely come when a designer, as such, would have been elected. I said would have, because it cannot be now. For a man to be a great designer he must of necessity be a worker in other mediums, too, and such are the leading designers of to-day. The opportunities and facilities of the time must result in creative activity, and what we want is a competent body of skilled workers, capable of carrying out the ideas of the master mind, thus giving to thousands with strong Artistic appreciation, but not necessarily imaginative capacity, the ability to exercise the skill of their hands, their sense of colour, and their expression of cultivated taste. We who have been and are so great in Painting, Sculpture and Architecture, must be equally as great in manufacture and design, which I venture to declare to be, in my opinion, the most important of all phases of

NATIONAL ART EXPRESSION.

A man may no longer be content to be a painter—he must be an Artist, and the designer must be content with nothing less than both, and there will no longer be excuse for him if he be not a craftsman too. You may rest assured of recognition now. The honours which were once absorbed by the painter only will be open to all. Those who maintain and increase our national wealth and reputation cannot and will not be ignored by a public who have been educated to at last realise the importance of our manufactures. The designers themselves have already formed themselves into a society. To quote their own rule:—"The objects of this society shall be to advance the Arts of design and the status of designers." We have in the Architectural Review, a monthly Art magazine, the most remarkable of its kind yet published, the proprietor of which has assured me of his intention of having all phases of current Art represented. The only pathway to success spells work, work and application. My faith is a simple one—to seek to know what to do and do it; to do and know how much remains undone; and to finish better what were well begun. We cannot and must not rely upon the work of others. We must rely upon our own efforts. Who can teach? Yet it is possible to direct, and by a word of warning and advice spare the worker a multitude of wasted hours, futile aims, and mental anguish. Beware of the absorbing worship of the actual; it is a question if there can be a great work of Art without idealism. The study of design compels the cultivation of the ideal, since all natural forms must comply to the exigencies of ornament. It is the neglect of idealism and the disproportionate devotion to realism that leads to false views of beauty and of morality; that stultifies the judgment and vitiates the taste. Be true to yourselves in Art as in life, simple and unaffected in your work; and beware of false hero-worship and desire to imitate. Be sure the imitators will but emphasize the smaller and petty qualities of the master which the master himself deplores. Avoid the vulgar error of forcing your originality in order to be ahead of others. You may achieve your aim, but possibly at a cost others wiser may not care to pay. Above all, beware of affectation or eccentricity, which is only another name for conceit. For eccentricity in Art is what slang is to Literature, and as certain to lead to license. Prove your right to the title of Artist, as much by your selection as your achievement. Art may and should ennoble all it touches, but in the spirit in which it is so often used should be added "Art is most particular what she does touch." If you lack imagination and cannot obtain some sense of beauty in your work, it will be either your misfortune or your training. Despise humbug, refuse to have foisted upon your judgment views and aims which you find are opposed to your reason and common sense. Be enthusiastic in your work and for the work of others, and not too discouraged over your own failures. Work steadily on, and there shall be not one so humble amongst you but shall do more to glorify Art and humanity than most of those who shout their merits in the highways, but who are despised for a time and then forgotten."

R.I.B.A. PRIZES AND SCHOLARSHIPS.

PRESIDENT'S ADDRESS TO STUDENTS ON MONDAY NIGHT.

THERE was a pleasing variation in the usual procedure, at the meeting of the Royal Institute of British Architects, on Monday evening. It was the annual distribution of prizes for the session 1896 7, and, in addition, a presentation was also made to Mr. Arthur Cates, formerly chairman of the Board of Examiners. Prof. Aitchison was in the chair. The first business was the reading of a memoir of the late Mr. Joseph D. Brandon, by Mr. Warren, who announced that the deceased member had willed £1,000 to the Royal Institute of British Architects, free of legacy duty, and—as stated in the will—"to be added to the funded property of the Institute, and income arising therefrom, to be applied at the discretion of the Council at the time being, towards the advancement of Architecture." A few biographical details of the donor followed—it being mentioned that the deceased was a Senior Fellow of the Institute at the time of his death—and in proposing a vote of thanks to the surviving relatives for the very munificent gift, the Chairman said, almost every one present had known Mr. Brandon, and esteemed him for his many gentlemanly qualities. During his life-time he had shown his deep interest in the welfare of the Institution by according it financial support in the way of meeting certain liabilities. The vote of thanks was carried with acclamation, and Mr. A. Waterhouse, R.A., was then called upon to make the presentation to Mr. Cates. The examinations which were conducted in connection with the Institution, Mr. Waterhouse said, were a serious and anxious undertaking, and some idea of its importance could be gathered from the fact that 780 candidates had already passed examinations, whilst upwards of 1,000 others were at present engaged in preparing for the second or third of the three progressive stages into which the examinations were now divided. When they compared the old voluntary examinations with what followed they found that 436 passed between 1863 and 1881, and that since 1882, when the examination to qualify for associateship became obligatory, 737 passed. The work of the Institution was, no doubt, a very great ordeal to those who submitted to it, but it seemed to have attractions after all, and when they considered the advantages appertaining to the examinations, independent of the intrinsic advantages, they ceased to wonder at the enthusiasm displayed by the students in this matter. A great amount of the work of management had fallen upon the shoulders of Mr. Cates, who had shown a great interest in the subject so early as 1855, having actively identified himself with the examinations in 1877 and 1882, having been appointed chairman of the Board of Examiners. A few years after his appointment he propounded the scheme for progressive examinations, and continued to preside over the deliberations of the

Board until last year, when considerations of health enforced his retirement. Mr. Waterhouse proceeded to eulogise Mr. Cates and the testimonial of which he was to be the recipient - a large and handsome silver bowl—had been subscribed for exclusively by past and present members of the Board of Examiners as a sincere expression of their personal regard and their admiration for the way in which he had presided over their deliberations for fourteen years. Dealing with the question of the examinations, Mr. Waterhouse said some people were scandalized when it was first proposed that they should test candidates in their knowledge of design. Had they been forcing some particular school of Architecture upon them, there might have been some ground for anxiety, but all they wanted was to discover, beyond good draughtsmanship, some appreciation of what makes for a good design—some idea of the fitness of things, adaptiveness of means to ends, and so forth—they wanted to keep the great end of Architecture in view—that of promoting the amenities of human life. Mr. Cates warmly acknowledged the honour, remarking that he had worked in the most perfect harmony with his colleagues for fifteen years, and the reception of Mr. Waterhouse's remarks, endorsing as it did the sentiments expressed, greatly enhanced the present in his eyes. His individual efforts in the matter of introducing obligatory examinations would have been of little account, however, had he not had the assistance of others; the support he received from the Board was most cheering and encouraging, and he was glad the Board adopted the policy of gradually stiffening examinations until they had reached a standard which, high as it was, would, he hoped, be still further increased in the future, so that the good results of the past would also be increased. The speaker acknowledged the prominent part Mr. W. H. White had played in the initiation and subsequent management of the obligatory examinations, and thanked Mr. Herbert G. Taylor for great assistance. Proceeding, he compared the condition of Architectural education to-day with what it was when he first entered the profession, and traced the advancement of the Architect, not only in England, but in other countries, especially in the United States, where an effort to obtain the special recognition of Architecture in the University course had proved successful. The system of examination involved a peril which he hoped would not be realised. There had been an uniformity of expression in support of the individuality and originality of the work of English Architects, and the peril lay in the tendency of academic influence to destroy this individuality and originality. And looking at the advantages of the examinations, they did not make any claim that these (the examinations) would make Architects. But they did enable the candidate to acquire the power to study, and the knowledge obtained in preparing for the examination would be the basis for future studies which would render him a worthy member of his profession and of the Institute.—The President delivered his address to the students at the conclusion of Mr. Cates' speech.—In his opening remarks, Professor Aitchison said that though he might be inferior to some of his predecessors, he yielded to none in his ardent desire for the improvement of English Architecture. He went on to urge that untiring diligence was absolutely necessary to the successful student, and as an illustration of this, he called the attention of the students to the work of the late Lord Leighton, the exquisite perfection of whose productions they would see, was the result of a most careful and accurate study of Nature. There was not a form, or extremity, or piece of drapery put upon his canvas which was not thoroughly studied before it was painted. But even with the greatest diligence, the longest life was far too short to enable them to become complete masters in the Art they professed, which embraced so many branches that a combination of qualities was essential to their complete mastery, which was rarely found in one man. It was a great saving of time to have a map, a compass, and knowledge of the reefs and sand banks before embarking, not only in order to avoid shipwreck, but in order to obviate any waste of labour by covering unnecessary ground. It was for them to map out the structure of their future studies, and then build with an earnestness which must ensure success. Architecture was a structural Art, and until they realised and acted upon this, he did not think any material improvement was likely to take place. They endeavoured to train the eye in the matter of proper proportions by studying classical buildings, and when they began to build it was necessary that they should have an arrangement which would obviate any waste of room. Man also wanted an outward appearance to a building which would give some indication of its character and use. Then skill was necessary in combining junctions, and this was done by mouldings which gave them varieties of light and shade. He would say nothing of sculpture, for they could not expect sculpture from Architects as sculpture was a branch of Art which required a man's life-study, and a bad Architect and execrable sculptor was not an object to be proud of. Of other points he might dwell upon there was the influence of the age, and in this connection he discredited those people who thought that "ridiculous antiquarianism" would ever take the place of Architecture. Our age was not Roman, or Gothic, or Renaissance, and if the Architect of the age was to charm the age, he must discover and embody in his work the desires of the age The President went on to speak of statutes of great statesmen, great inventors, leaders in industry, painters, sculptors and Architects, &c., whose work would make the nation live in the memory of the world, when its greatness and glory had departed, being introduced into our public buildings for the promotion of Art. Architecture could only but slightly be a reflex of the age, but if invention in Architecture was extinct, they must try to re-create. Another point he wished to bring before the students, and that was the study of the methods employed by the great Architects of the world to effect the emotions proper to the use of buildings, and particularly those dedicated to the adoration of the Almighty. Students were naturally apt to seize upon features in a building they admired and use them in the most incongruous way—to apply a feature of a Church to a business store for instance. But he hoped that the students would all strive assiduously towards advancement, and there could be no doubt, that just as examinations in surgery and medicine had greatly furthered those sciences, so the examinations in Architecture would have the result of materially benefitting that branch of Art.—Mr. Fawcett read a lengthy criticism of the students' work, the meeting closing with the announcement that Mr. A. Gilbert, R.A., would read a paper on "The Sculptor's Work of the Renaissance," at the next meeting of the Institute, to be held on the 1st prox.

SOCIETY MEETINGS.

The Architectural Association.—At a meeting of the Architectural Association, on Friday evening, the Chairman (Mr. Beresford Pite), announced that Mr. W. H. Seth-Smith, in furtherance of the suggestion made in his paper at the last meeting of the Association, had forwarded some suggested conditions for the competition, for which he offered a prize of 10 guineas. The conditions would be considered by the committee in due course, and a further announcement made on the subject. The Chairman also announced that Mr. Fellows-Prynne had been nominated by the committee to fill the vacancy caused by the resignation of Mr. Begg, and it would, therefore, be their duty, in accordance with Bye-law 35, to nominate some one at the next meeting to fill the vacancy in the committee which Mr. Fellows-Prynne's election to the post of vice-president would cause. The member who was the first unsuccessful candidate for a vice-presidency at the last election could be nominated.—Mr. A. S. Flower will read a paper at the next meeting, to be held on February 5th, on "An Unwritten Chapter in Architectural History."

The Edinburgh Architectural Society.—The annual smoking concert of this Society was held in the Imperial Hotel, on the 6th inst. There was a large attendance. The opening meeting of the present session was held in the Rooms, on the 13th inst. There was a good attendance, Mr. J. A. Williamson, A.R.I.B.A., President, in the chair. The minutes of previous meetings having been read, the Hon. President, Mr. R. M. Cameron, delivered an opening address on "The Dean of Guild Court" and "Hints on Valuation." He pointed out the necessity of attending minutely to the requirements of the Court in the preparation of plans so as to avoid any unnecessary delay in passing such plans, also indicated the limit of the powers of the Court, besides giving some very interesting instances where the Court had used its utmost powers to the advantage of the annuity of the city. He afterwards gave some very valuable hints on valuation of property, pointing out that valuation may not be learnt from books, but must be gained by study of sales of property, land, etc., combined with forethought and common sense. At the conclusion of his address Mr. Cameron, on the motion of Mr. Cumming, seconded by Mr. A. R. Scott, was awarded a hearty vote of thanks.

Liverpool Architectural Society.—The fourth ordinary meeting of the forty-ninth session was held at the Law Library, Union Court, and a paper was read by C. E. Mumford, Esq., on "Belgian Churches," illustrated with limelight views. Among those present was Mons. E. Séve, Belgian Consul-General to the United Kingdom; Mons. E. Versprecüwen, the Belgian Consul; and Professor F. N. Simpson, of Victoria University College. Mr. George Bradbury, President of the Society presided. Mr. Mumford, in his opening remarks, said Belgium was without doubt one of the countries of Europe where the Fine Arts had flourished, and were still flourishing, with the utmost vigour. The long series of great painters who succeeded each other for more than four centuries had not alone brought her the renown which she so justly enjoyed. Architects and Sculptors had contributed their part. The devotion and intellectual culture of the Flemings had been shown in the vast number of Churches of high Architectural merit which were to be found in the country. Few of the older buildings now in existence date back beyond the beginning of the 13th century. It was not until the Gothic style was firmly rooted in the adjacent countries that it came to be adopted by the Flemings. All the vast wealth of ornament accumulated in these Churches up to the middle of the 16th century was destroyed by the Calvinist iconoclasts, and then there perished a wealth of Art, the loss of which was irreparable. About the commencement of the 17th century, the country again becoming prosperous, Art and Architecture received a new impetus, and many new Churches were erected. The builders of Belgian Churches, whilst striving successfully after the beautiful, always kept the practical utility of their work well in view. About 150 slides, photographed by the lecturer, illustrating Churches in the towns of Antwerp, Lierre, Malines, Brussels, Namur, and Dinant, were shown on the screen. The proceedings closed with votes of thanks to the lecturer and the chairman.

FURTHER progress will shortly be made with the widening of Angel Street, Sheffield, the Corporation having now acquired the freehold site at the corner of Angel Street and King Street.

Announcements.

Editorial.

THE EDITOR will be glad to read any suitable matter submitted to him, and will return all MSS. when stamps are sent to pay postage.

All matter must reach the Editor by the first post on Monday morning to ensure its treatment in the current issue.

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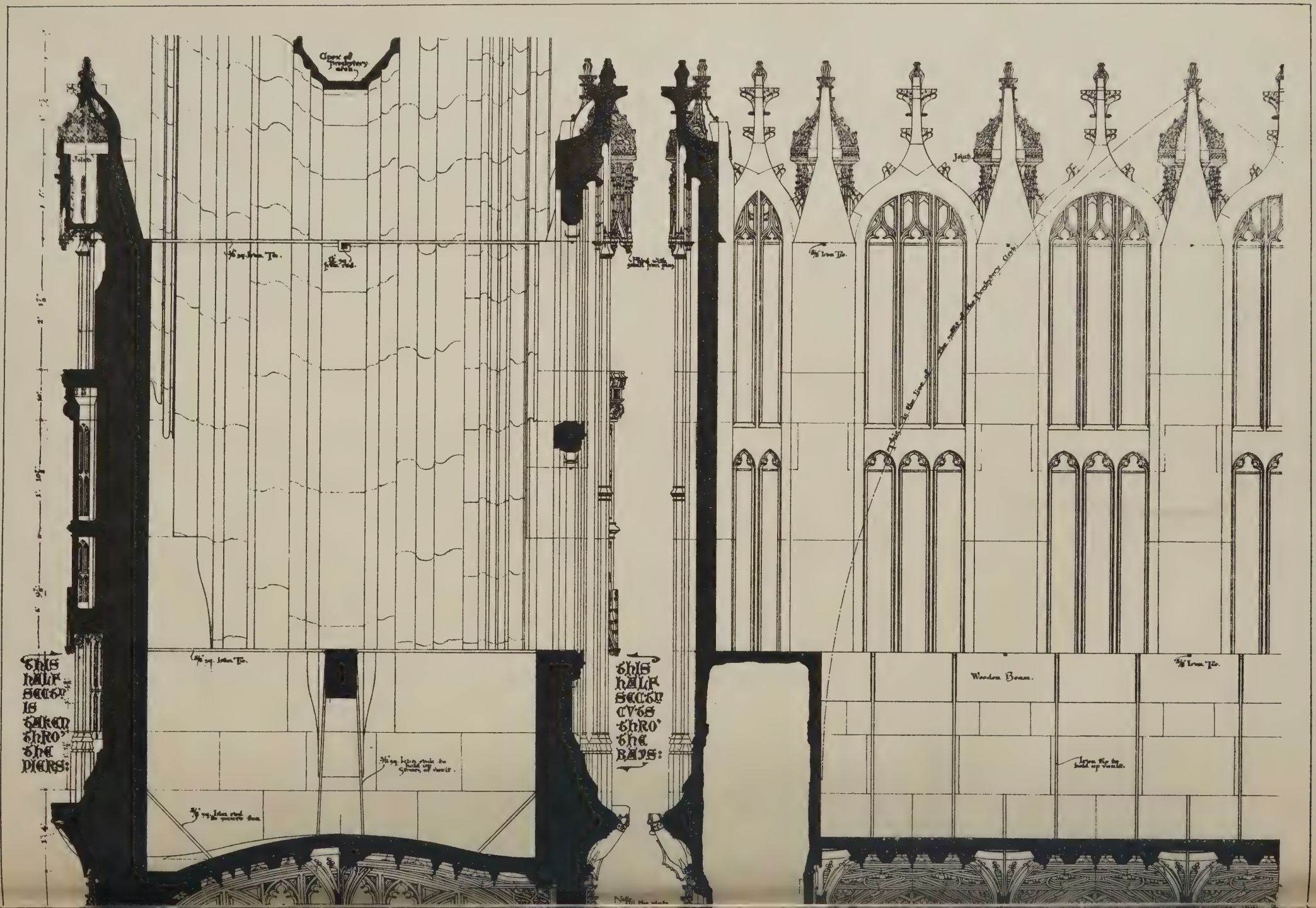
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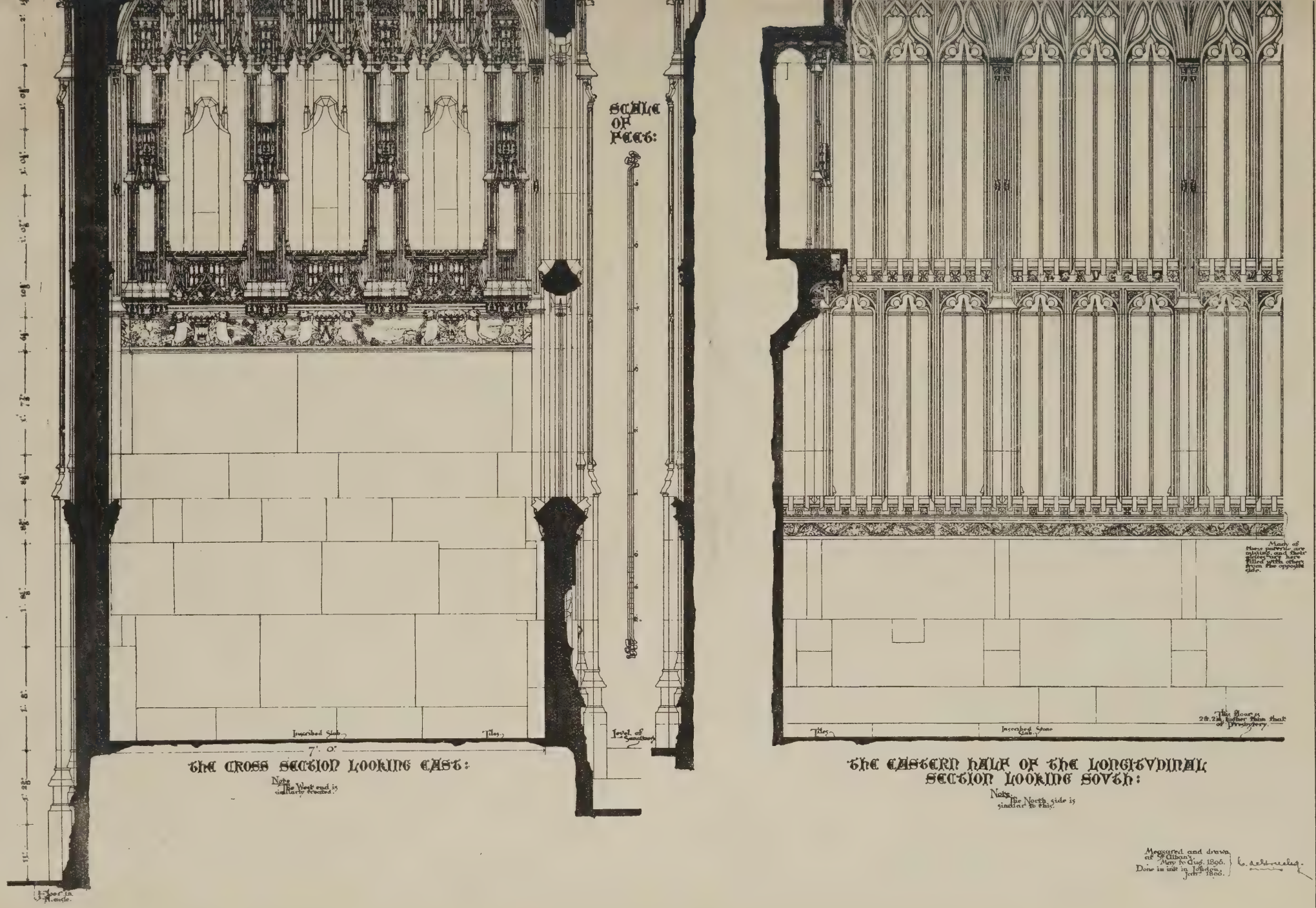
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THIS HALF SECTN IS TAKEN THRO' THE PIERS:
THIS HALF SECTN GVES THRO' THE BAYS:
Wooden Beam.



THE CROSS SECTION LOOKING EAST:

Note. The West end is similarly treated.

THE EASTERN HALF OF THE LONGITUDINAL SECTION LOOKING SOUTH:

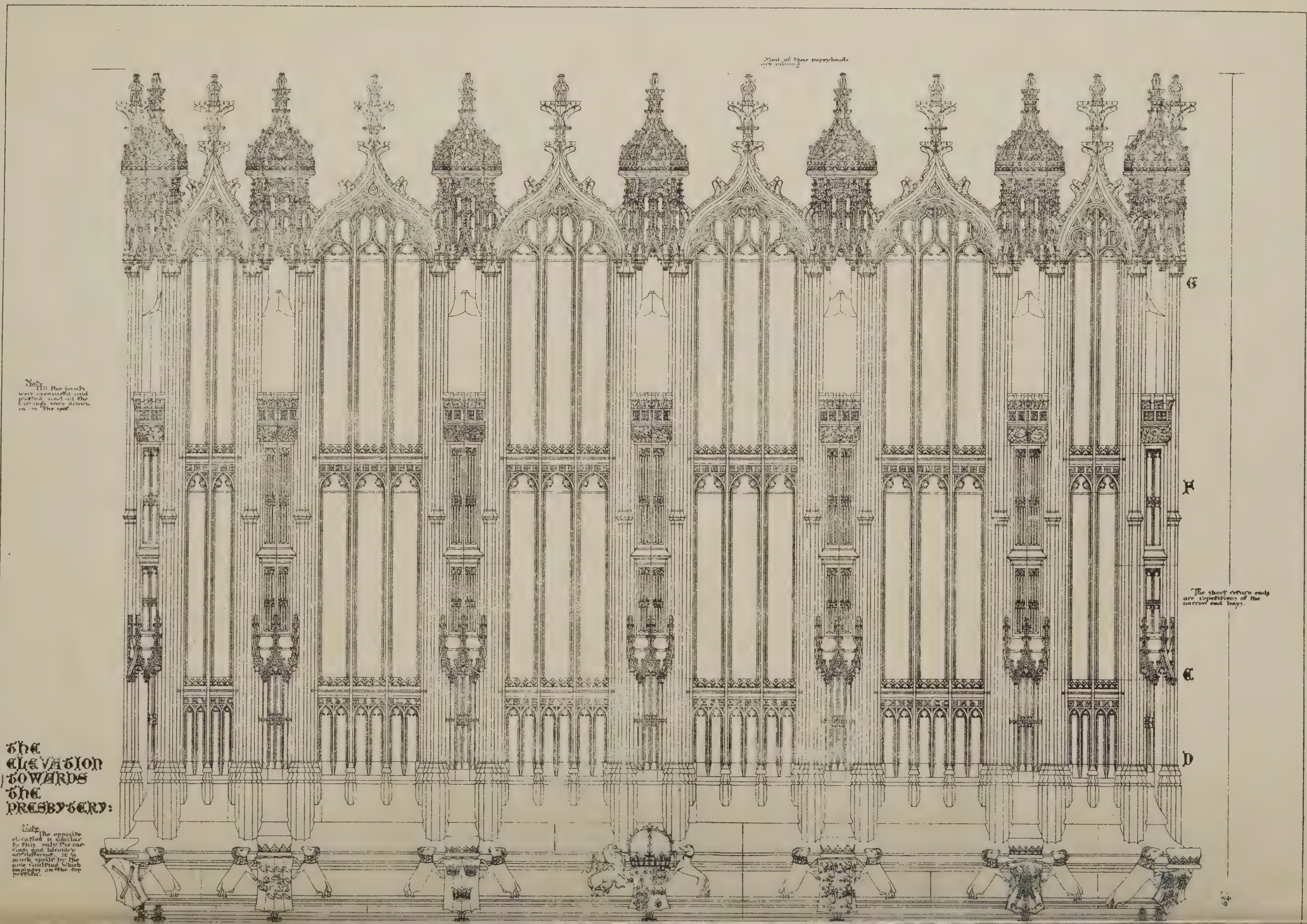
Note. The North side is similar to this.

Measured and drawn at St Alban's, Nov. to Aug. 1896. Done in ink in Lodge, Jan. 1897. C. de Gruchy.

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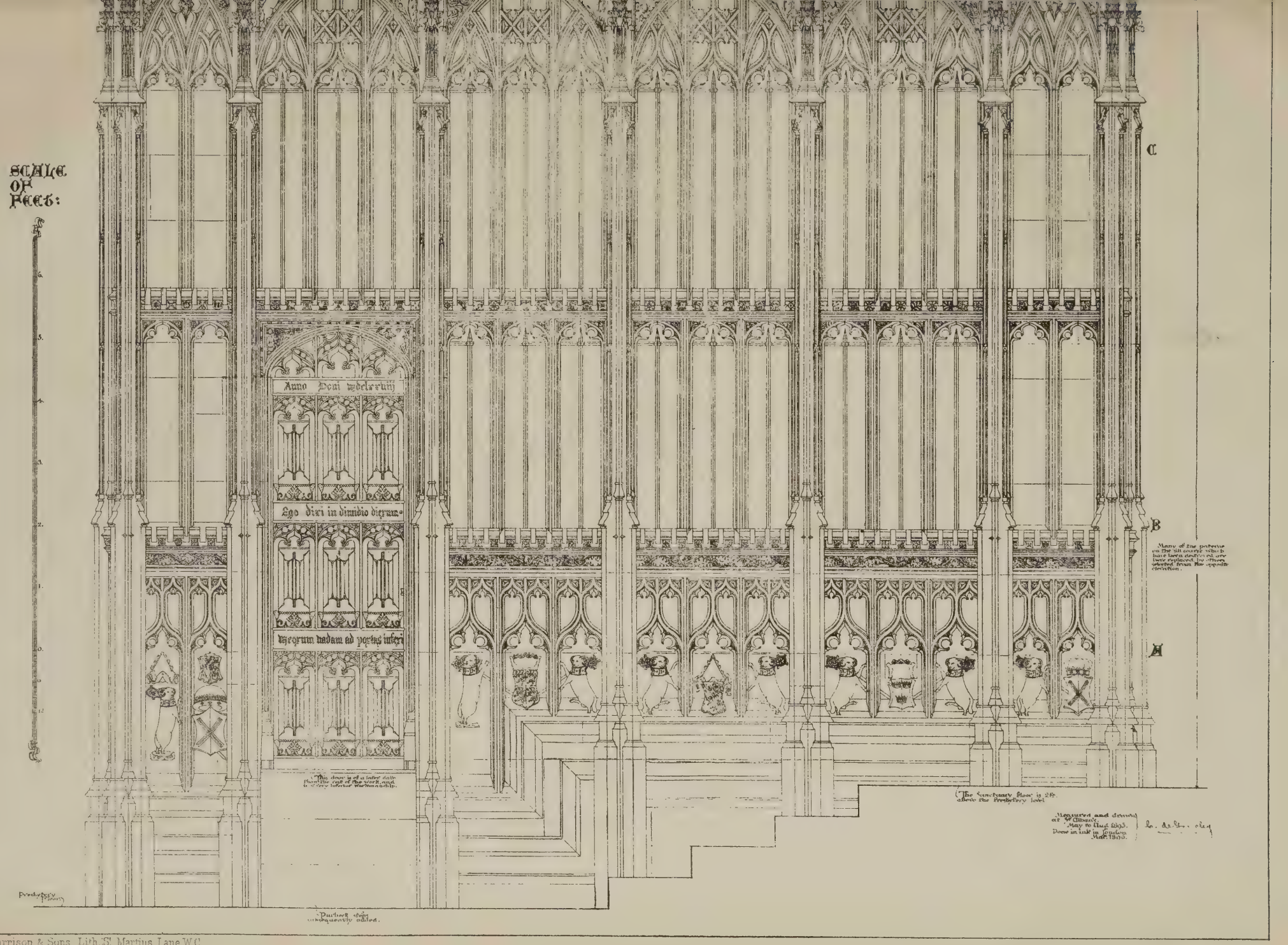
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Note. All the joints were mortised and pinned, and all the carvings were drawn in on the roof.

The Elevation towards the Presbytery:

Note. The opposite elevation is similar to this, only the carvings and heraldry are different. It is much spoilt by the gate and flap which hangs on the top rail.



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THE CHANTRY OF ABBOT RAMRYGE, ST. ALBANS CATHEDRAL. MEASURED AND DRAWN BY C. DE GRUCHY.

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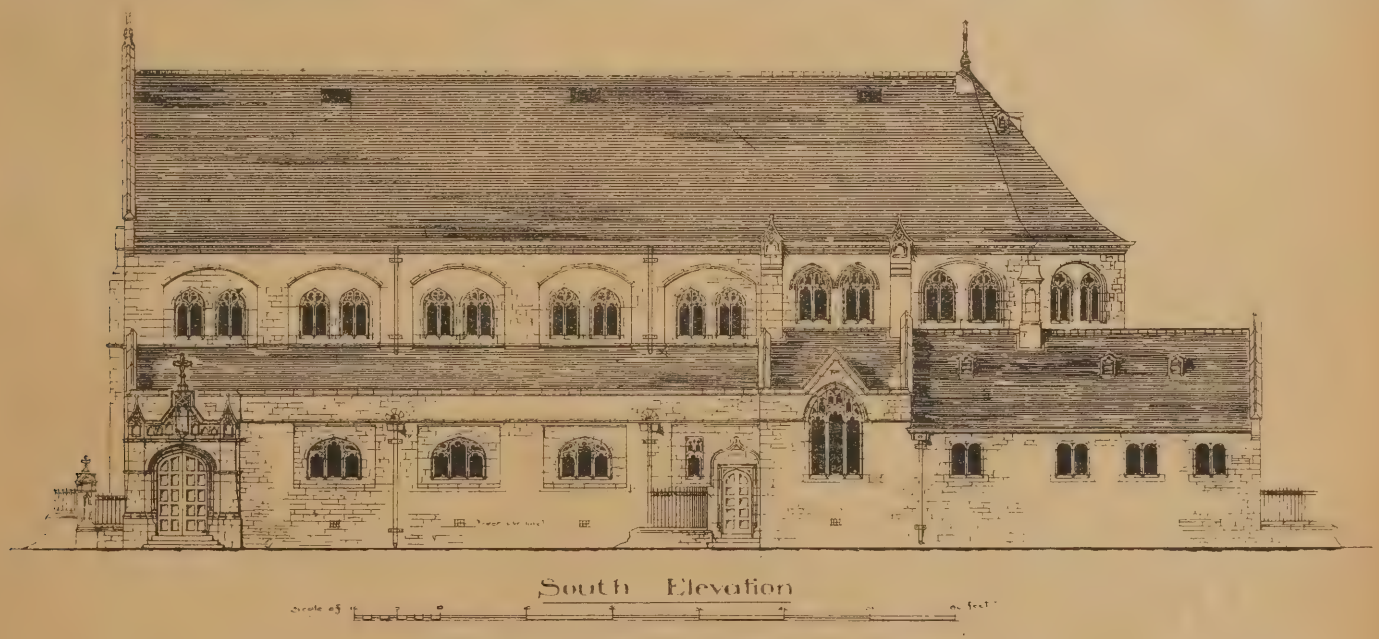
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Humour in Exeter. Unlike Drumtochty, we have a natural aptitude for gaiety, consequently we are always grateful to anyone who is good enough to offer us some humorous entertainment, such as a correspondent kindly provided us with, in a Devonshire local paper a few days ago, on the subject of the recent competition for the Exeter Church. We said some time back in these columns, there were to be found few things so diverting as the "Art criticism" of those who are not Artists. We were mistaken however; there is yet another critic more amusing still, and that is your large contributor to a local paper, instructing his "fellow-townsmen" in Art in general, and specially on the Art of Architecture. For genuine humour on Architectural things, he is unsurpassed. And we should say in passing, it is only for that engaging quality on the part of this particular individual we make use of him here and thank him accordingly. He is writing what he imagines to be a criticism on our exposure of the Emmanuel Church Competition, and concludes we have not given any evidence of the unfairness of the award. With the exception of one or two designs, as we have said, the work has not been so strong as we had wished, but we are sure Artists will agree with us when we say that it most certainly has reached a far higher standard of merit than that set by the assessor in his award, which latter showed an utter want of appreciation of even the most elementary principles of Artistic design. Says this unconcious humourist of Exeter, "This is all a matter of taste. Just so—" Also "just so." It is "a matter of taste." It is a matter of good taste or bad taste. The man who prefers the selected design in this competition to any of those we have praised in our pages, only reveals the fact that he has an inartistic mind, an uncultivated taste, and that he has not the least idea of what he is talking about. What better proof of this could there be than this amusing remark of his?—"I know nothing about styles of Architecture, but I do know the sort of buildings I like." Again, "just so." If he had known "anything about the styles of Architecture," or even had had the faintest glimmering of the principles that obtain in Art generally, he would never have given himself away in such an entirely funny manner. He tells you of his ideas on what he thinks is "Art" in such a frank and engaging way that you can read his mind completely. He tells you (though not in words) that he prefers the Strawberry Hill Gothic of Batty Langley to anything William of Wykeham ever did. He "fancies" the "Architecture" of Belgravia, before anything Athens has to show; it is so much more "substantial," and, finally, you are quite sure he would like better the popular pretty paintings of to-day than any of the masterpieces of Velasquez or Rembrandt. And—this is the most amusing part of his humour—he tells you all this so clearly, at the very same time he



EXETER COMPETITION. DESIGN BY F. T. W. GOLDSMITH.

thinks in his poor blind way, he is posing as an authority on good taste in Art. He has never a notion he is advertising his own distressing want of knowledge. Of course we cannot argue with anyone like this, it is but waste of time to try and reason with incompetent critics any way, but we should say that his description of our attitude towards the award as "hinting at its unfairness," is hardly a life-like rendering of our own impression of it as "one of the worst-conducted competitions of recent years." His notion, too, that those who have to pay the piper have a right to settle the question of the Art of the building is also too good to lie unearthed. According to this, Lord Grimthorpe is justified in his awful mutilation of what was one of the finest of the Abbeys of England, because "he could pay the piper." Because the local committee at Exeter can do the same as it, the right to inflict on its suffering fellow-townsmen one of the cheapest and most ordinary versions of regulation Gothic we have seen for many a long day. With one thing we are in entire agreement with our funny "critic." He says the committee has exercised a wise discretion in not entering into communication with "rejected contributors." We think so, too, but for totally different reasons. Doubtless, by now, the humourist will wish he had followed the committtee's example.

DURHAM AND ITS CATHEDRAL.

IN consequence of the pressure upon our space the conclusion of this article is held over until the next issue.

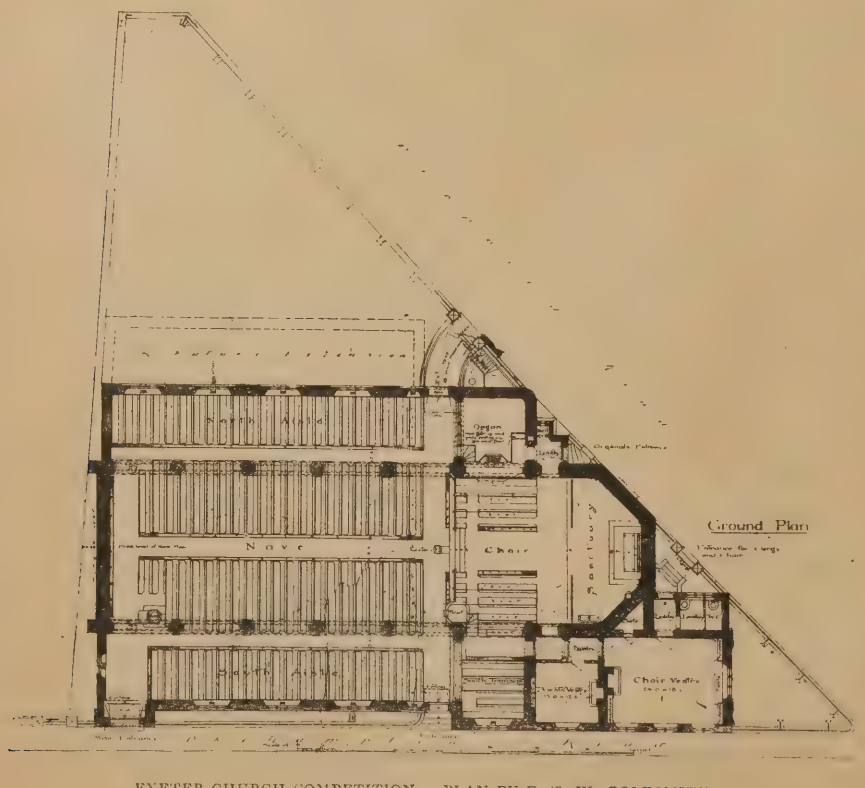
AT the monthly meeting of the Mytholmroyd Urban District Council, the plans and scheme submitted by Mr. Sam Shaw, civil engineer of Dewsbury, for sewerage and sewage outfall works at Greenhills, Mytholmroyd, were approved, and it was resolved to forward them to the Local Government Board, and that application be made to borrow £12,500 for the purpose of carrying out the proposed works.

MR. VAL PRINSEP ON "THE PERMANENCE OF ART."

BOOKS, said Mr. Val C. Prinsep, R.A., on Thursday night, at the annual distribution of prizes at the Clapton Art School, are of little use to Art students, because only the doings of great men are chronicled in them, and not what the young students themselves can do. Two men may have exactly the same talents, but one would probably fail hopelessly if he tried to work upon the ideas of the other. The pupil must first obtain a thorough knowledge of Art, and then render his own feelings, which he alone can find out. There are many Arts—painting, music, Architecture, literature; in fact, their name is legion. Art is the expression of a man's feelings, reproducing the visions and fancies which visit the brain, and to which the Artist gives form and expression. Different men produce these ideas in different ways, as witness the various works of great painters, writers, and sculptors. In every case the Artist has to present the work clothed with his own individuality, if that work is to be of any value. Of all these branches literature is, perhaps, the most powerful, for it grows up with each one from the earliest years. But all of the Arts need to be stamped with the individuality of the Artist. The actor renders the works of others in his own way. The orator makes his words sublime by his manner of delivery and his eloquence. To those who live in succeeding generations the plays which delighted their ancestors are dull without the magnificent power of a Garrick, who led his audiences to admiration and enthusiasm. But Garrick is now little more than a name. With painting it is different. A painter cannot hope to excite the enthusiasm which an actor, a musician, or a literary man evokes, because the public who view his works are not so easily moved. There is, however, this advantage—his works last, and those who succeed him can see those masterpieces, the actual work of those who called them into existence. In one good picture can be seen what volumes cannot show. He called the attention of the young Artists to the exhibition of the late Lord Leighton's works, remarking that there was the same finish about the last works of the late President of the Royal Academy as about those executed forty-five years ago.

QUEEN'S COLLEGE, BELFAST.

THE Students' Union building of the Queen's College, Belfast, which was designed by Mr. Robert Cochrane, of Dublin, compares favourably with the other buildings on the grounds, the elevations being arranged to harmonise with them. The structure is of brick, with white stone dressings at all jambs and angles. Annadale bricks are used for facing, and the stone is from the Giffnock Quarries in Scotland. One of the chief features about the building is the cut-stone tracery windows. The building is sunk eight feet below the surface level, thus forming a basement which has been utilised for caretaker's apartments, heating-chamber, kitchen and culinary apartments, lavatories, and a large billiard-room. The gas fittings have been done by Messrs. Richard Patterson & Co., and the heating by Messrs. Boyd, Paisley. The building contract was placed with Messrs. J. and R. Thompson, Thompson Street, Short Strand. The work, including fittings, has cost £8,000. The principal elevations face University Square; the building is approached from the grounds by the existing drives, and a broad flight of cut-stone steps leads to the principal entrance on the ground floor. These are separated from the students' quarters, which contain a billiard room. Adjoining are the apartments containing the lavatories, baths, and students' lockers. These rooms are separated from the kitchen and offices by a vestibule. This basement is approached from the grounds outside at low level, and also from the grand staircase on the principal floor. The principal apartment will be used for public meetings. The hall measures 40 feet by 30 feet, and contains accommodation for about four hundred people on the floor and gallery. The gallery runs round three sides of the hall on the upper floor. The apartment is lighted at each end by large five-light traceried windows, and at the side by the large recessed bay window, and is amply ventilated by the turret ventilator on the roof. The dining-room is reached from the hall, and is over the kitchen, from which it is served by lifts. There are pantries and stores adjoining this department, also served by lifts from below. The upper floor contains smoking-room, approached from the main staircase, lighted on three sides, and ventilated through the roof. The Architectural style chosen is a somewhat free treatment of Gothic of the Tudor period.



EXETER CHURCH COMPETITION. PLAN BY F. T. W. GOLDSMITH.

DISCOVERY OF A "CIMABUE."

A DISCOVERY is reported by the London correspondent of the Manchester Courier as having recently been made at the residence of Canon Harford, in Dean's Yard, Westminster. Canon Harford has long been known as a great collector. During 1862 and 1863, when living at Charles Street, Grosvenor Square, he was visited by the Marchese Di Balzani, who insisted upon the Canon putting his own price upon certain pictures which were intended as souvenirs. Canon Harford declined any gallery pictures, but accepted some small pictures which the agent of the Marquis described as worm-eaten and destroyed. Among these were a Giotto and a Fra Angelico. There was also a Madonna and Child, evidently an altar-piece, in a gable frame, which covered a large part of the picture. Having removed the frame, Canon Harford restored the picture, removing three robes, as Mr. Richmond, R.A., removed three crowns from the head of a king in Westminster Abbey. This picture, after careful examination, has been pronounced by Sir E. Poynter, P.R.A., and other experts, to be an undoubted Cimabue. Mr. Eadie Reid, who has been entrusted with the work of restoration—a work of the greatest importance and delicacy—has made some interesting discoveries. The drapery, which was a mass of black, has been made to reveal the original lines, and the original texture of the picture has been restored. The heads of the Madonna and Child alone have remained untouched since the picture was painted, 1240-1260, probably owing to a familiar superstition. At present there is only one example of Cimabue in the National Gallery.

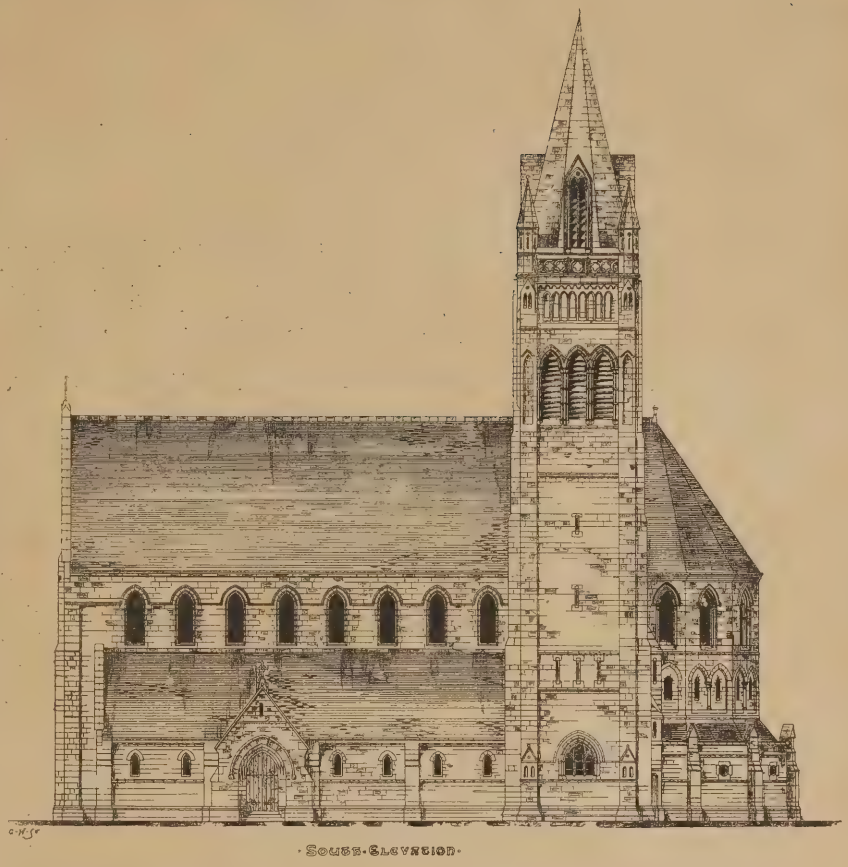
THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

The Exeter Church Competition Fiasco.

Final Notice.

OF the designs we publish this week, that by Messrs. Wimperis and East is the best Artistically, and is also the best adapted to the site and local conditions. The plan is excellently well arranged, and there are points in it we wish the authors would illustrate in perspective, as there are, judging by the plan and sections, many interesting pictures to be obtained from it.

As we have already said in a former issue, we think the exterior is an admirable example of scheme as to strength in design, and marked by much Artistic feeling in the treatment and scale of the various parts. We have only one small grumble to make, and that is against the undignified finish to the tower, which would be a picturesque enough feature in the cottages on the right-hand side of the perspective, but is not at all the sort of thing for the covering of a Church tower. Not to finish with a complaint, we should like particularly to call attention to the external treatment of the nave windows, to the internal arrangement of the nave piers and arches —we think the effect of these would be excellent. It is a great pity this Church is not to be built, but we hope the Artists may have an opportunity, sooner or later, of seeing their work realized. The design by Messrs. Hall, Cooper and Davis, of Scarborough, is, as will be seen on comparing the perspectives, on a much more grandiose and elaborate scale. Indeed, the comparison at first sight between these two versions of the same subject is remarkable. The design by Messrs. Wimperis and East appears as a village Church by the side of the other one, which has more the air of a small Cathedral—in fact, there are Cathedrals on much more simple lines than this Church.



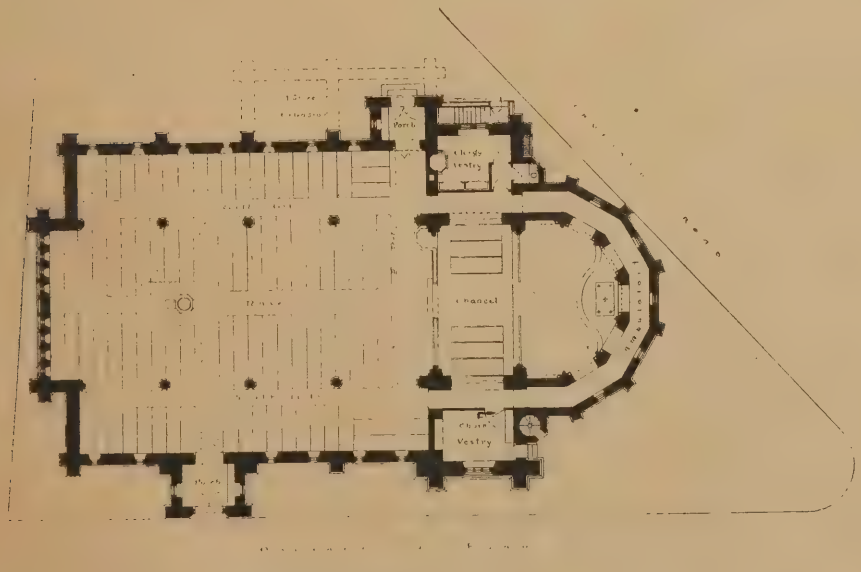
No. 4.

South Elevation.

MR. W. TARRING'S DESIGN.

We mention this, because it seems almost impossible that the two designs could have sprung from the same conditions.

Apart from the question of suitability to the local requirements and the site, this is undoubtedly an able and well-studied composition, and shows an appreciation for scale and proportion. The tower particularly has been well studied in this respect. There the proportion of window and wall space, with the carved band under the belfry windows to redeem the whole from a slight feeling of hardness, is well managed and is probably the best part of the whole design, although the treatment of the west end, with the big traceried window, and the small towers which flank the gable end on both sides, is good and interesting. We think the entrance porches the most unsatisfactory parts of the work. They appear somewhat wanting in proportion of parts, and their general effect is a little lumpy. The plan of this design generally is very good and well thought out, but we think it a pity that the dignity of the east end (that quality should certainly be expressed there, if anywhere, in a Church), should be marred by the projecting buildings of the clergy vestry, &c., which spoil the lower parts of the exterior of the chancel considerably. But this criticism applies, we admit, to most of the designs, and the fault is probably more due to peculiarities of the site than anything else.



Ground Plan.

PLAN BY MR. W. TARRING.

PROSPECTIVE BUILDING AT SWANSEA.

THIS year will be characterised by several large building undertakings in Swansea. As to new buildings, the most important will be the new post-offices on the site of the old Mackworth Hotel. The plans for the new buildings have not yet been completed, nor are they likely to be submitted to the Corporation for approval before the Treasury has sanctioned the expenditure of the money—probably £40,000. The new Swansea post-office will be at least equal in Architectural design to that of Cardiff, and will be situated in a more open thoroughfare. Next come the schemes for improving the hotel accommodation. The Swansea Hotel Co., Limited, will in all probability proceed with the rebuilding of the George Hotel and adjacent premises on an elaborate scale. The proprietors of the Cameron Arms intend to proceed at once with the rebuilding of that hostelry. The probability is that the company will be formed after the rebuilding. Then again, Messrs. R. E. Jones, Limited, have already given out the contract for extending the Mackworth Hotel, in High Street, on the site now occupied by Capel Seion. The contractors are Messrs. Lloyd Bros., and the cost of the extension will total up to about £4,000. Work will be commenced next week.


HALL COOPER &
DAVIS ARCHITECTS
SALISBURY
DESIGN FOR
NEW CHURCH
EXETER

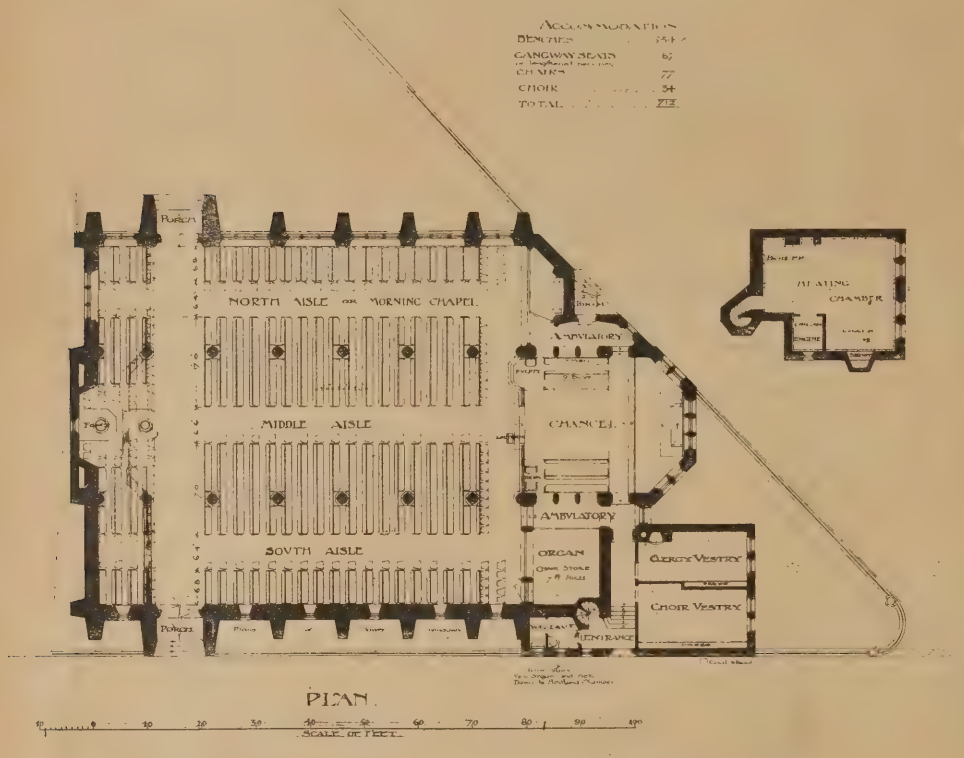


EXETER
CHURCH
COMPETITION
DESIGN BY
WIMPERIS & EAST

THE ARCHITECTURAL ASSOCIATION.

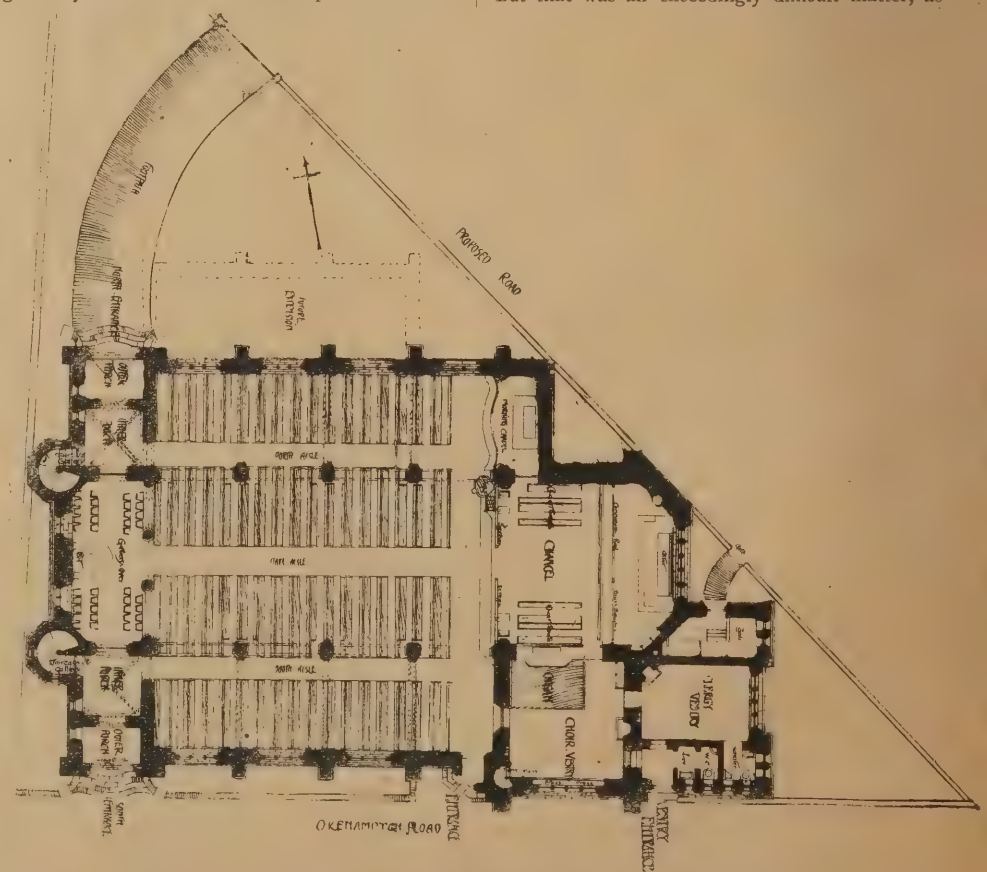
DISCUSSION ON MR. E. P. WARREN'S PAPER.

AT the close of the Paper, read by Mr. Warren, which we gave in our last issue, Mr. L. A. Shruffrey, a former president of the Class of Design, said he thought Mr. Warren had two points of practical importance. But, first of all, he would like to say one thing about Adams; his was not plaster work. It was a composition, so that it did not afford much exercise for the modeller's Art. And, as for fibrous plaster, which had been much alluded to by Mr. Warren, it had its virtues and disadvantages. For instance, it did not afford the same resistance



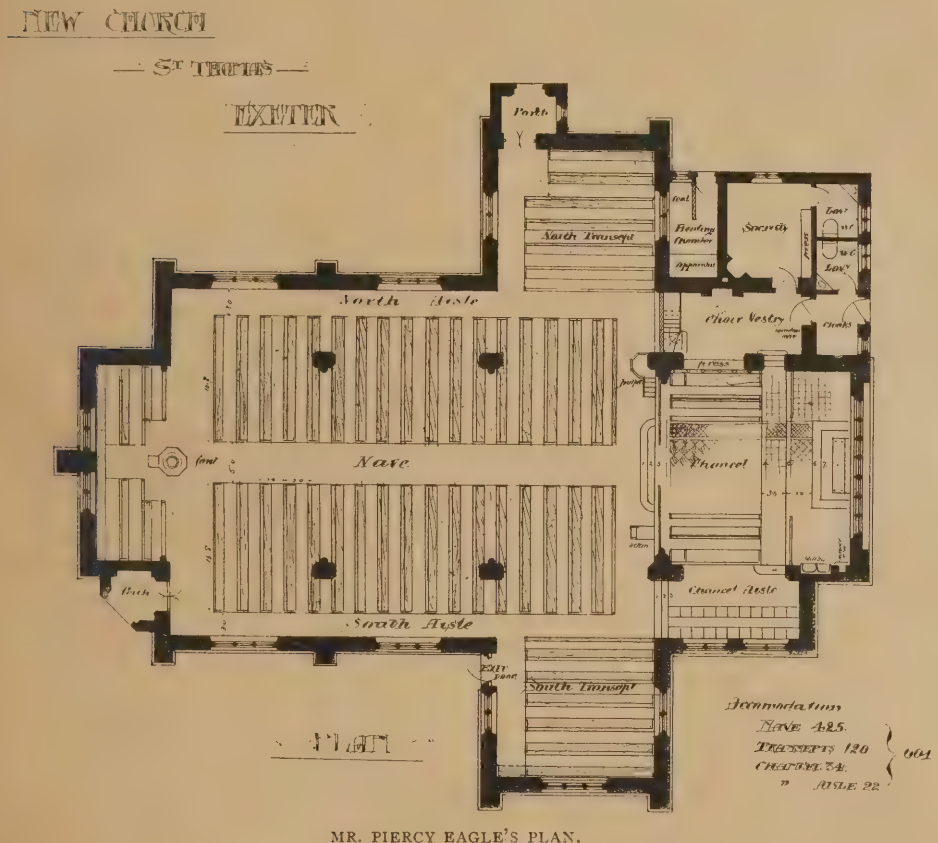
EXETER CHURCH COMPETITION. PLAN BY MESSRS. WIMPERIS AND EAST.

touched upon all the points of the subject if they drew the line at the type of plastering of which they had examples in the room. Plastering went a good deal further in England, however, as exemplified in the work of Adams, about whom they had heard nothing that evening. Personally he thought there was a good deal of beauty in Adams' work — many of his adornments were exceedingly beautiful—but the work ought to be looked at in a slightly different light to that indicated by Mr. Warren. His ideas as to an undulating surface would get them into great trouble, even in the execution of latter-day plastering, if they were not very careful. For his own part, he thought a plain ground answered the purpose very well, for it afforded a contrast when the model work was put upon it. And a "tip" of practical importance on this subject had reached him, and it might, he thought, be of benefit to others. When modelling ornaments on the ground, no matter whether in plaster or clay, a little bit of clay rubbed along the edge where the model work intersected the ground, would do a great deal of good in taking off the hardness. This, however, would not be necessary in some work where everything was sharp. One of the charms of Adams' work, for instance, in a great measure lay in the sharpness of the modelling; the old mouldings, they would notice, were frequently set up edges, very square from the ground. It seemed to look well, but the specimen they had in the room was not one of the best; the circles did not seem to have any connection with Adams' work. He (the speaker) would particularly like to lay stress on one of the points raised by Mr. Warren—the value of the ground. There was no doubt that very little ornament indeed could be made to go a long way, and one often found that one had taken a great deal of trouble to model an ornament that would be better swept out of the way. He ventured to assert that a model frieze designed by Mr. Warren, which was exhibited in the room, would be improved by the removal of a considerable amount of the ornament, and as this was a matter which added appreciably to the labour and cost, it ought to be borne in mind. He begged to propose a vote of thanks to Mr. Warren for his paper.—Mr. Miller said, he wished to point out one or to sound as lime plaster, owing to its thin nature, neither was it so reliable because it was backed up by wood, and, therefore, was not nearly as fire-proof as plaster laid on stone walls. It was generally believed that fibrous plaster was a modern invention — something like 50 years old—but, whilst at work in Paris, he had discovered a book on Architecture, the result of a visit to Egypt by two French Architects, who stated that there (in Egypt) the workmen worked with fibrous plaster so far back as the fourteenth century, and worked in the shop and benches in much the same way as that of to-day. And going still further into the remote past, the speaker found that fine linen and plaster were used in the decoration of coffins. Even the mummies were swathed in it, plaster being used in just the same way as in modern surgery, where it was required to keep a broken limb in position. Therefore, there was nothing new in fibrous plaster, although, as he had said, it certainly had its recommendations. It was very useful, for instance for ceilings, though there was no doubt they could not use it for all work. It was also very useful when dealing with old ceilings in cases where it would be a disadvantage to remove the old plaster. In such a case, providing the timber was good, they could execute a new design without disturbing the old plaster. Then again, fibrous plaster had the advantage in theatrical decorations because it was so rapid; there was no waiting for the drying, and, as illustrating this point, he mentioned the case of a large building being erected in Holborn in which the plaster work was fixed before the roof was on, though of course, some temporary protection from wet had to be provided. On each floor, in succession, plaster was fixed as soon as the walls were nicely up. The subject was a wide and interesting one, and it had been well treated by Mr. Warren. Mr. Hampden W. Pratt seconded the vote of thanks to Mr. Warren. With all the plaster work done now, he said, one was surprised to notice how conservative the speculative builder really was, particularly having reference to the persistent way in which he clung to the old-fashioned centre-flower decoration. If there was one thing the speaker was brought up to abominate, it was the customary ornament in the centre of the ceiling. But Mr. Warren had rather spoken of it as a legitimate type of decoration. He dare say that it could be executed very nicely, but they had to get the prejudice against the centre flower which used to be screwed up against the ceiling, out of their minds. With regard to the modelling of the plaster, it was essential that it should be worked out to suit the light in the building of which it was to form a decoration. But that was an exceedingly difficult matter, as



EXETER CHURCH COMPETITION. MESSRS. HALL, COOPER, AND DAVIS' PLAN.

Mr. Warren had told them, more especially when they had to consider daylight and artificial light. It was a question to-day whether they ought not to consider or reconsider their modelling in view of the fact that the electric light was now the common illuminant of so many buildings, and having regard to the increased light which was now thrown upon the ceilings. The speaker was glad Mr. Warren had made reference to the use of the sway. They certainly had good authority for using it. It was used every day, but really it did seem very ridiculous. And as to treating the cornices as part of the ceiling instead of part of the wall: it was true there was a difference in the case where they had a panel divided by ribs, but, generally speaking, he thought that a room was very greatly improved when they started the work of decoration with the idea that the cornice was a part of the wall and not a part of the ceiling. This form of decoration had been affected more in recent years on account of the great use made of the frieze; the frieze was such a common thing that if they worked a cornice they were bound to make it part of the wall. The temptation to do too much in plaster decoration was no doubt very strong, and one had to study very carefully reservation in all these matters in order to obtain a good effect. With regard to external decoration, he wished Mr. Warren would give some further information whether it was possible to get external plaster work that was weather-proof without having to resort to Portland cement, and, further, if he knew of anything which could safely be relied upon when used for positions in half-timber work instead of Portland cement. He had pleasure in seconding the vote of thanks.—The Chairman said he thought there were a number of other little matters they might ask for further information about. He would like to know if Mr. Warren would recommend any specification of the proportion of materials for ornamental plaster ceilings. He had given them a very careful and accurate account of some specimens of old work he had examined, but he thought it would help them more if he could give any recommendations as to the proportion of sand, or give a proper description of the sort of lime best suited for the work, or any hints necessary to the workmen employed. Then there was the question of the advantage or disadvantage of using old lime. He did not think Mr. Warren had mentioned Parian lime, and he (the speaker) was under the impression that Parian was easy to use with the fingers. (Mr. Miller here interposed to say that Parian cement really was a very good thing to model with, and its subsequent hardness was obtained by the application of acids. With Parian cement sufficient time was allowed to properly manipulate the material.) The Chairman, resuming, said this was an interesting and important point. A ceiling was done for him some years ago, in which was a fair amount of decoration, and which was floated in Portland, then set in Parian, and afterwards the Portland was cut out and the Parian run in. The Architect drew on the Parian the model he required, and the modeller worked it up with a knife, and thereby got just the amount of freedom which was required. He would like to know whether Parian was less hurtful to the hands than the ordinary plaster, which burned to such an extent that it could not be modelled by the hand. Mr. Warren had wisely confined himself to one class of work. It seemed to him that in the domestic plaster work of England, from the Elizabethan period down to the beginning of the Adams' time, no one worked on the relations to and freedom of the ornament. There were cases where it was valuable to have it, and cases where it was valuable to be without it, but, as a general rule, it seemed that sharpness and uneven surface must in a measure be regulated by the degree of light and shade. He did not wish anyone to suppose that because a thing was uneven and rough it was beautiful, or, on the contrary, that because a thing was even and smooth it was beautiful. During the Association's excursion this year—and it was well to drag in the excursion wherever possible—they saw a good deal of very interesting plaster work in the heart of Kent. They saw a remarkable ceiling in King Charles the Martyr's Chapel at Tunbridge Wells, which was very instructive, because the main part of it had been executed at the building of the Church. It was a fine ceiling, with some dish domes let into it, and ornamented further with some representations of fine pine-apples. About 50 years ago the Church was enlarged and the design was repeated. The contrast, however, was most marked and instructive. It had lost a lot of life and vigour, and time. Reference had been made to Groombridge, but besides the interesting work of Mr. Warren, there was a very fine ceiling to be seen in Groombridge Place. It contained some very charming ornament. Then at Holmeshurst there was an interesting ceiling which had not been completed. Some of the Association's æsthetic young men—or old men—imagined that this had been done on purpose. It was a magnificent idea; the ceiling was only half finished but it was evident that this was not the original intention, because, on examination, he had found a geometrical pattern had been prepared but had never been fully executed. The ceiling really had an interesting and picturesque effect, but it was a mere accident. With regard to plaster domes, the speaker suspected he had no definite information on the point—but he suspected that a great many of the charming little domes in the Bank of England were of plaster. Now the Bank of England was within reach—some of them had no doubt made its acquaintance ere this, when they had paid their dividends over the counter—but he urged the younger members not to wait for dividends, but to go as soon as possible, and walk from one end of the building to the other, observing the domes as they went. There was one ceiling which was particularly effective; its little moulded ground looked like a sheet of crumpled note-paper, which had been obviously done for a little Artistic effect, and there was no doubt it had been well attained.—The vote of thanks to Mr. Warren was carried with acclamation, and, in replying, Mr. Warren said he was much obliged for the kindly way in which they had greeted his paper, and was glad to think he had succeeded in rousing some interest in the subject. With regard to the questions asked and points raised in the discussion—first, the omission of any mention of Adams' work—he wished to say that his paper was intentionally quite unchronological, and not at all historical, otherwise it would have been necessary to have gone very much further in the past, and the subject would have become too great for a single paper. He had not omitted mention of Adams' work slightingly, and though he agreed that some of it was very interesting, he also recognised that it was mere imitation, and the swags, umbrella patterns, and so on, were repeated over and over again. If they went to Rome they would see Mr. Adams' work in abundance, executed long before Mr. Adams commenced any of his designs. Mr. Adams' work so strikingly resembled this work in Rome that it really looked as though casts had been taken and a pure imitation produced, just the same as Chippendale practised with his furniture, by obtaining Italian models. Had he adopted a historical line he should also have had to mention a great deal of Queen Anne work and Carrolean work; his object was merely to put forth his view of things which the Architect practising in England might aim at and hope to achieve. He agreed with Mr. Shruffery that the design he had made, and which was exhibited in the room, was too full, and an improvement would be made if the vines were pruned. But in this case the design had been made for a room which would not be too brilliantly lighted. Then Mr. Shruffrey had commented upon his remarks with regard to flat grounds. Well, he must say that even in a ceiling of the Adams type, a flat dead ground was unpleasant.—Mr. Shruffrey: I should like to ask how you are going to do what you suggest?—Mr. Warren: Well, you must wean the workman; but in the case of fibrous plaster there is no difficulty whatever, because you cast for a model ground and that is what leads me to advocate the use of fibrous plaster. It has its disadvantages, but you can get clean away from the ground. You can use it freely on undulating surfaces. Continuing, Mr. Warren denied that he favoured the use of the centre flower, and as to the effect of the electric light on mouldings—that was an effect which they had got to reckon with. He did not think electric light improved our ceilings artistically, but it had no doubt come to stay, and a slight difference in the execution of a design would be in many cases desirable. As to external plaster work, personally he had used Portland cement, and had afterwards obtained the required colour by using wash. He knew of nothing better. As to the other questions they would be better answered by Mr. Miller; but one or two other points had suggested themselves during the discussion. The first was as to the treatment of surfaces. There was no doubt that it was exceedingly easy to overdo it. He had overdone it himself in one particular case, and the only safeguard, he supposed, was experiment and experience. Then a second point was to employ an Artist as efficient as possible to execute the ceiling and other plaster work, leaving the design in his hands as much as possible. The



MR. PIERCY EAGLE'S PLAN.

Architect's business should be to direct merely the leading lines and the general scheme of what he required, leaving the plasterer's technical knowledge and skill to supply the detail.—Mr. Miller, in answering the other questions which had been put to Mr. Warren, said there was no doubt that lime, like wine and the violin, improved by age, and the old Romans forbade the use of lime which was not at least three years old. He could not see any objection to Portland cement, because it was the strongest cement in the market, and could easily be coloured to any requisite tint. They could almost model in Portland cement; in fact, he had himself made some small external decorations in it, and had found it almost as easy to deal with as clay, although they could not leave it for a while as they could clay. Fibrous plaster for internal decorations afforded greater opportunities for variety, and as regards cost he thought it would be as cheap as the ordinary plaster, which had to be modelled, then cast, and afterwards fixed. And with fibrous they obtained better effects of light and shade. He hoped there would be a revival of plaster work by hand.

In our last issue, the name of Mr. Joseph D. Brandon was mentioned as the donor of £1,000 to the Royal Institute of British Architects. This should have been Mr. David Brandon.—ED.

LIVERPOOL IMPROVEMENTS.

AN EXPENDITURE OF £285,000.

AFTER a long discussion, the City Council has decided on an important street improvement in Liverpool. Two schemes, dealing with the widening of Renshaw Street and Berry Street, have been submitted—No. 1 being that of the Health Committee, and No. 2, that suggested by Mr. Boulnois, the city engineer. The first was formally approved by the Council on the 26th October last, and is the one which has now been adopted; and the consideration of the second, which is now abandoned, was postponed on the 6th January this year, and it suggested the demolition of certain property on the west side of Renshaw Street. Owing to the narrowness of Renshaw Street and Berry Street they have frequently been referred to as the "bottle-neck" streets through which the greater portion of the traffic from the south end had to pass in order to reach the heart of the city. The scheme provides that Renshaw Street shall be continued in line with Lime Street, from the parapet in front of the Adelphi Hotel to the frontage of the premises, No. 3, in Leece Street. This will mean that the shop and houses now standing on the east side of Renshaw Street, together with one or two establishments at the corner of Mount Pleasant and Leece Street, will be demolished. At the present time, the width of Renshaw Street at the Adelphi end is 49 feet 2 inches, but by this scheme it will be increased to about 100 feet; at the Leece Street end, Renshaw Street is 44 feet wide, but when the improvements are carried out it will be about 66 feet wide. With respect to Berry Street, which is also to be set back on the east side, it is intended to make the new parapet run in a line with the parapet on the east side of Great George Street, and consequently this improvement will also necessitate the demolition of a large amount of valuable property, from the corner of Upper Duke Street to Bold Place. The present width of Berry Street, at the Bold Place end, is 43 feet 6 inches, but by this scheme it will be increased to some 66 feet; and the present width of Berry Street, at the Upper Duke Street end, is 44 feet, whereas the improved width will be—as at the other end—66 feet. It is roughly estimated that the improvements resolved upon will cost about £285,000.

THE parishioners of St. Martin's, Potternewton, Leeds, intend raising a fund to erect a memorial to the late Vicar. The memorial, it was suggested, should include the putting in of a window in the west end of the Church, and the completion of that portion of the building. To carry out this scheme about £1,000 will be necessary, towards which subscriptions were announced amounting to about £440.

MR. MOUNTFORD'S REPORT ON THE PROPOSED NEW TOWN HALL FOR COLCHESTER.

HAVING been instructed to submit a report to the Corporation as to the advisability of utilising the old premises or erecting a new Town Hall entirely, Mr. Mountford reports as follows:—"The present building is in very bad condition, and the badness of the foundations is only part of the mischief. Trial holes showed that the interior of the walls is practically only rubble, with a half-skin brick upon each side, and there is little or no bond. The stone used in the building is decayed badly. The ashlar work is in a similarly unsatisfactory condition. The floor of the Town Hall chamber itself is weak, and of very bad construction, and could never have been safe for the purposes of crowded meetings. The insufficient strength of this floor is only characteristic of the whole building. The roof is the best part, but even there the workmanship is not of the best. The balustrade might at any time fall, especially during a gale or snowstorm, and if that occurred the cornice must come with it. In reference to a new Town Hall, a hall to seat 500 persons, a Council chamber, Mayor's parlour, Committee-rooms, and sets of rooms for all the Borough officials, together with Quarter and Petty Sessions Courts, cloak-rooms, retiring-rooms for persons engaged in the business of the Courts, would be absolutely necessary, and he considered the total area required was 14,860 square feet, to which, as the principal chambers would occupy the height of two floors, must be added a further area of 5,300 square feet, and, allowing for halls, staircases, &c., this would make a grand total of 24,192 square feet of required floor. To meet this there was at disposal the site of the existing hall, Joslin's premises, a store building, engine house, yard, and police offices, which left little to spare, and careful planning would be required to get the proposed building on the space available. It seemed to him that the present Town Hall must go; indeed, it was hardly worth retaining. Internally it had no Architectural merits, and was altogether unworthy of the town, and was in such a condition that to pull it about would be dangerous and costly. Supposing the existing building to be retained, the cost of necessary additions and alterations could not be less than £14,000 or £15,000, while the result would be unsatisfactory. As regards the style of building, he favoured the free classical treatment, red bricks for the fronts, the principal fronts being treated in a simple and broadly dignified manner, such money as could be spared being spent in employing a good sculptor to illustrate the town's history, an idea carried out with good effect at Sheffield, Northampton, and elsewhere. A perfectly new building, exclusive of fittings, would cost between £18,000 and £20,000.

A PROPOSAL is on foot to provide a cottage hospital for Featherstone and Purston, Pontefract.

THE Galashiels Unionist Club has accepted contracts for the erection of a club house, to be built in High Street, at a cost of £2,000.

IT is proposed to erect a memorial to the late Right Hon. Edward Stanhope at Horncastle, in the shape of a large and solid granite drinking fountain.

DURING the north-easterly gale at Sunderland a large chimney at the yard of the Sunderland Shipbuilding Company collapsed, and fell on to a frame-turners' shed. The damage is estimated at £600. A number of hands are thrown idle.

AT a meeting on Friday, of the Streets and Buildings Committee of the Town Council, it was resolved to recommend, on a report by the Burgh Engineer (Mr. Cooper), the Magistrates and Council to authorise the reconstruction of several of the public main sewers in the city, at a probable cost of between £3,000 and £4,000.

AT a meeting held at Norwich on Saturday, a resolution was adopted to the effect that the 60th year of the Queen's reign should be celebrated by the erection of a new Jenny Lind Institution for Sick Children, to take the place of that established by the great singer many years ago. Lord Leicester, who presided, headed the list of subscriptions with a donation of £2,000.

Bricks and Mortar.

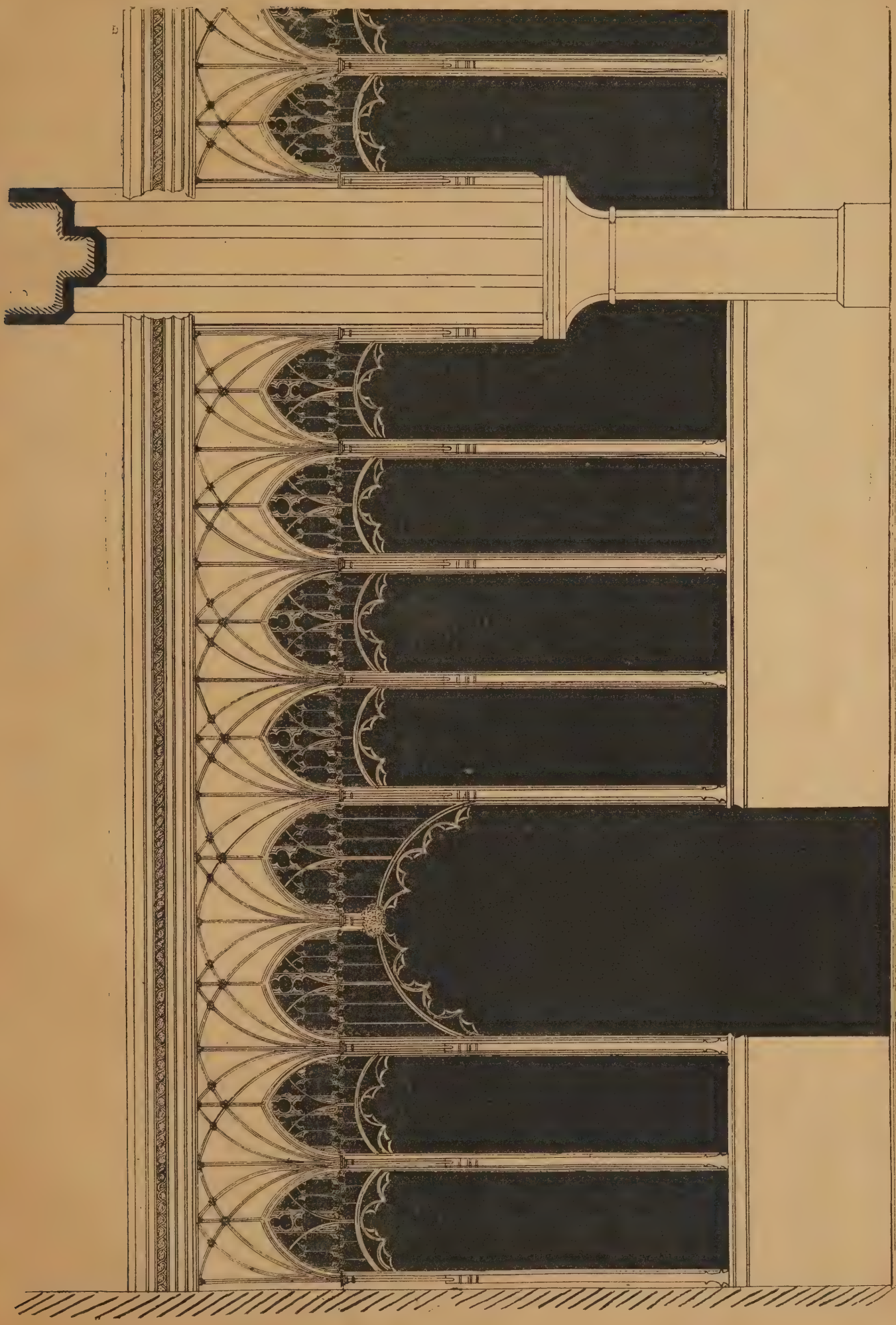
EFFINGHAM HOUSE, ARUNDEL STREET,
January 27th, 1897.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

PALACE YARD, so well known in Earl Street, Coventry, has been purchased by Alderman Singer, and is believed to be destined to be converted to some public object. The site, which is partially covered by quaint old timbered buildings, comprises about 2,800 square yards. It has been the hostelry of several royal visitors, particularly in the seventeenth century. In September, 1687, James II. was entertained there by Richard Hopkins, a citizen. In December, 1688, Princess Ann of Denmark lodged there. In 1689 Mr. Hopkins was elected a member for the city, and in the following year Prince George of Denmark was his guest. The buildings have of recent years been used as builder's premises and as offices and warehouses. They adjoin the Technical Institute, and front the site of the proposed new municipal buildings.

ONE of the most ancient churches in Derbyshire, that dedicated to SS. Mary and Lawrence at Bolsover, was completely destroyed by fire on Sunday. Bolsover is a mining village between Chesterfield and Welbeck Abbey, and is mainly the property of the Duke of Portland, who is lay rector and patron of the living. Tradition says that on this same spot was a Druid temple. A Christian Church was erected about the year 665, and the first stone Church was built in 1020. Less than 200 years later this building was demolished and the structure destroyed last Sunday was then erected. It was a large, plain structure, partly in the Norman style intermixed with later English, with a tower surmounted by a low spire in the style that is called "broached," and is so common in the Peak of Derbyshire. Here has been the burial place of the Cavendish family since 1618, a Chapel and vault being added to the Church in that year. Within the Chapel—and this is the only portion of the building saved—are two costly monuments, one to Sir Charles Cavendish, who died in 1617, and to his wife, and another to the memory of Henry Cavendish, Duke of Newcastle. The fire originated in the vestry, which was situated at the north-east end of the building, and directly over the heating apparatus. A beautiful stained-glass window, presented by Mrs. Charlesworth, was utterly destroyed, much of it being melted by the intense heat. No sign is left of the organ and pulpit, nor of a handsome carved oak screen.

ACCORDING to the Manchester Guardian, the inside of the Lady Chapel at Gloucester Cathedral is being "grimthorped" in secret. The outside, which needed repair, has been subjected to wholesale renovation. But promises were given that the inside, which did not want anything done to it, should be respected. A few days since, a visitor to the Cathedral was told that orders had been given that no one was to be admitted to the Chapel, and the vergers were forbidden to speak about it. Nevertheless he saw into it, and found "restoration" in full career. The tile pavement, the largest and most perfect of its kind and date in England, was all torn up, and the place spread with concrete. Whether operations had begun upon the reredos he was not able to see. It will be remembered that this reredos, though terribly shattered, is to the Artist and antiquary a most important monument, for nothing of the same kind is to be found anywhere else. We understand that the professional direction of the work



DETAIL OF OAK SCREEN, ST. MARY'S, USK, MONMOUTHSHIRE. MEASURED AND DRAWN BY E. P. PHILLIPS.

at Gloucester, is with Mr. Waller of that city, and Mr. J. L. Pearson. It may be interesting to explain that the Lady Chapel was built in 1457-98. It is partly seen, through screen work, at the back of the modern reredos. It is cruciform in plan, and elaborate later English in character To all intents it is a separate building from the Cathedral. From within the Cathedral it is not visible, the entrance being a low arch from beneath the great Perpendicular east window, "a single window to the eye, though bent to a three-sided shape; a wall of glass, 72 feet high and 38 feet wide; the largest window in the world," whose original glass has been preserved through five centuries. The Lady Chapel is cruciform in shape and Perpendicular in style, the windows occupying so great a share of the wall space as to suggest a house of glass. Its western window faces, on a lower level, the east window of the Cathedral, and the space between is curiousiy bridged by continuations of the Cathedral triforium, forming an upper connection between the two buildings, and popularly known as the "whispering gallery," from the fact that the slightest sound produced at one end is clearly heard at the other.

IT is to be hoped that by the end of February the mosaics in the choir of St. Paul's may be completed, and already the scaffolding is put up under the north-east section of the dome. When the decoration of the cupola is at all advanced the progress in the whole scheme will be much more apparent, as the choir, except on unusually bright days, is so gloomy that the effect cannot be judged from the nave. Meanwhile, there are signs of activity outside the building as well as within it. The scaffolding is up round one of the large southern windows, the iron work will be removed, the existing window taken out and a temporary one placed in front of it, while the stained glass given by the Duke of Westminster is being set up. The Duke is donor of the northern window as well, the one commemorating the Kings, and the other Bishops. The Wellington Monument is also to be surmounted by the equestrian figure.

THE great structural alterations contemplated in Whitehall and neighbourhood, are just now engaging the attention of the Office of Works. Negotiations are proceeding satisfactorily for the acquisition by the Government of the leases of the block of houses in Parliament Street, the demolition of which is to effect the widening of that thoroughfare. It is probable that action will be taken in the ensuing session with a view to a commencement being made with the scheme for the new War Office in Whitehall Place. When this building is finished and ready to receive the military authorities, there will be considerable changes of situation of several Government departments. New quarters will have to be found for the Commissioners of Works, probably close to the new Admiralty buildings.

A SUGGESTION has been made by the Charity Organization Society for the establishment of a central hospital board for London, upon a representative basis. The suggestion ought to receive very careful consideration. Something must be done to rescue the most necessary of these public institutions from the state of chronic debt and difficulty out of which they never emerge, and by which their energies are crippled and their usefulness impaired. The expedients resorted to to raise money are often not such as can be commended, and frequently they are objectionable, and the constant lack of funds leads to bad management and disorganization. There is far too much money spent in administrative expenses. The public, if it had a central representative body to which it could look with confidence to control the expenditure of its gifts, would give more generously.

IN New York, a very important change is to be made on Fifth Avenue between Forty-First and Forty-Second Street. This is the removal of the reservoir adjoining Bryant Park, one side of which fronts Fifth Avenue, as another does Forty-Second Street. A recent meeting of the Board of Aldermen has assented to the removal of the reservoir, the Board of Fire Underwriters having withdrawn its opposition, in consequence of a large water supply having been made available by the laying down of new mains in Fifth Avenue. The high walls of the reservoir will give place to the new city library which it is proposed to erect, and the building will, no doubt, be in keeping with the Architectural condition of the large edifices in the neighbourhood.

Early in March, the foundation-stone will be laid of the new tower of Flamborough Church. The name of few villages is better known than that which contains the famous lighthouse, and the tower to be built is designed to take the place of that blown down in 1615, and which had been built at the end of the twelth century to strengthen the Church and make it a place of refuge for the inhabitants in case of need. In those days, Churches had a military as well as an ecclesiastical purpose, and apparently the one tower was not sufficient to resist the constant invasion of the northmen, and especially the troublesome Scotch, for in 1352, we find that Edward III. granted a license to Marmaduke Constable to build a tower for the fortification of his manor-house, which lay within a stone's-throw of Flamborough Church, and the ruins of which are still to be seen. Royal licenses to crenellate were issued by the sovereigns between A D. 1256 and 1478, and the castles of that period are known as Edwardian, to distinguish them from the earlier ones. So, it will be 550 years since last a tower was built in Flamborough.

SOMERSET HOUSE does not look like the home of romance or mystery, the stately, smoke-stained, classical façade which frowns upon the Strand. Yet there are memories enough hanging about the site to fill a volume, says the Globe. Here the Protector, Somerset, raised one of the most splendid palaces of the Strand, sweeping away Churches and Chapels and cloisters for the purpose; here was the dower-house of the Queens of England; here dwelt Henrietta Maria, and beneath the pavement of the quadrangle are still the vaults of some of her French attendants; here General Monk lay in state; Cromwell, too, with such magnificence of display that the populace threw mud upon his escutcheon by night. But the old palace has gone with the rest of the mansions that fringed the river; to point morals, perhaps, on the mutability of human affairs, or at any rate to supply amusement to the antiquarian; and where once it was, now stands the building vaguely associated in the minds of men—not with courts, and pomp, and splendour, but with death duties, and excise licenses, and probate of wills; a dismal and confusing labyrinth, whereof the key is Red Tape, occupied and guarded by "officials." Yet still it is no ill place for the "contemplative man," who will take his recreation in London rather than in the manner which Isaak Walton has prescribed for him. He need not dig up the relics of a dead past, or recall, with laborious pensiveness, scenes that have perished away; there are still on the site of the Protector's palace, some of the quaintest aspects of that quaintest of beings, man, to be observed, not amid the splendour and magnificence of a Tudor court, but in the more sordid and commonplace surroundings of a public office.

A GANG of 60 men, under the direction of the engineers of the Great Eastern Railway Company, recently achieved a phenomenal task in connection with railway bridge-making. In several instances, bridges have been pulled down and others erected in their stead in the course of a single night; but on this occasion one was removed and another pulled into its place by the same operation. Over the River Lea, at Tottenham, was an iron bridge of 77 feet long, weighing 100 tons, and it has been replaced by one 84 feet 9 inches long, weighing 130 tons. The new structure had been erected on cross-staging side by side with the old, and the first work was to cut the old bridge at both ends and raise it bodily 18 inches, so that it could be mounted on wheels, as the new bridge was. Then the two were hauled along until the new bridge occupied the place of the old. This was successfully accomplished by eight o'clock in the morning, the hauling having been completed in exactly an hour. Then the new bridge had to be raised for the removal of the wheels. This was done by a huge travelling crane, and the new viaduct was gently lowered into its place. The permanent way was restored, and the first train passed over the bridge at 2.20 P.M.

IN publicly stating what is really being done at Carisbrooke Castle, Mr. Percy G. Stone, F.S.A., says "roofs and floors are being placed in the well-known gate-house to adapt it to its new purpose—a museum. Externally, absolutely nothing is being attempted. Its picturesqueness will remain unspoiled. I have heard of no general restoration scheme. I came across, in 1891, among the State papers in the Public Record Office, the 1583 plan. It is a very superficial affair, and not a plan of the castle. It was drawn by Richard Popinjay, 'the Queenes Mai's surveyr. of the towne of Portismowth,' who got out a scheme, at the request of the then Captain of the island, Sir George Carey, for providing him with better accommodation. On this plan a flight of steps, enclosed with thick-and so ancient—walls, is shown, leading from the outer ward to the gate-house. This scheme I adopted as my approach to the museum, though I found no signs of such steps till quite recently, when, in grubbing up the roots of a tree it was necessary to remove, I came upon them. Needless to say, I now propose to make these steps serve their original purpose."

THE name of Lord Leighton is to be given to the Free Art Gallery and the Technical Institution which is to be opened in Camberwell. Lord Leigh on was for many years the president of the South London Fine Art Gallery. The people of Paris name their streets after the great men of France, and a most becoming practice it is. Their example seems to have been followed in several of the buildings being erected round London. Next March the foundation stone of the Lamb and Keats Library will be laid at Edmonton. Next autumn a like ceremony will take place in St. George's, Southwark, in memory of Sir Henry Layard and Sir W. Molesworth, both of whom represented Southwark in Parliament. The inhabitants of the district only lately adopted the Act. Then there is the University Settlement at Bloomsbury, to be associated with the names of Emerson and Jowett, in which case the titular connection is not local. It is, however, in the case of the Alleyn Library, the foundation of which was lately laid by Sir Henry Irving.

HIGH buildings which were a novelty in American Architecture only a few years ago have reached the point where they overcrowd the narrow streets of large cities. Public opinion, which first marvelled at these lofty structures, and regarded them rather in the light of an experimental anomaly, is becoming intolerant of the continuation and elaboration of the sky-scraper style of Architecture. A law fixing a limit to the height of buildings was enacted in Illinois a year or two ago in order to prevent further encroachment of this sort on the streets of Chicago. The same question is at the present time under discussion in New York city, and the Legislature of that State will doubtless be asked to regulate the future erection of the buildings to the end that a fixed height shall not be exceeded.

AT a meeting of the Brighton Town Council on Thursday, considerable discussion took place with reference to a report submitted by the Works Committee, containing a scheme prepared by the surveyor for the defence of the eastern foreshore, at an estimated expenditure of £36,000; the scheme included the provision of a sea-wall and the reclamation of about two acres of land. The motion for the adoption of the scheme was met by an amendment that groyning only should be carried out, at a probable cost of from £10,000 to £16,000; but this was afterwards altered, so as to call upon the committee to prepare plans and specifications for the protection of the foreshore by means of groynes without a sea-wall, and carried by 35 votes to 13.

WITHIN a year after the auction of Lord Leighton's celebrated town residence, the home of his next successor in the presidential chair of the Royal Academy is to share a similar fate. The house in Palace Gate, however, cannot compare, in point of interest, with that in Holland Park Road. Its chief feature, excepting the historical studio, is a fine landing on the first floor paved with marble and fitted with a marble fountain. The house, which was built for the late distinguished owner, will, we understand, be brought to the hammer at Tokenhouse Yard on March 11th.

SIGNOR RICCARDO AURILI, of Florence, has commenced the bust of the Queen, which he has been commissioned by a Committee of Italian residents in London to prepare as the gift to Her Majesty upon the occasion of the celebration of the 60th year of her reign. The modell ng of it will be finished by the 20th February, when it will be handed over to an Italian foundry to be cast in bronze. It is said that the bust will first be exhibited at the forthcoming Royal Academy Exhibition.

THE Improvement Committee of the Cheltenham Corporation has submitted a scheme involving an expenditure of £45,000, on municipal buildings and a kursaal. The proposal is, briefly, to convert the present Winter Garden—which the town recently acquired for £13,000, but which cost £20,000 in its construction—into municipal offices, and to erect at the north end of the garden a kursaal. The council chamber, also on the same level, would be located immediately underneath the dome; it would be an octagonal room, amply large for the purpose. The ceiling of the offices and council chamber would form the floor of the palmery, and would mark the commencement of the glass superstructure, which rises higher even than the lofty rooms beneath. To bear this new floor the walls of the Winter Garden will have to be strengthened, and it is intended to case them with Ruabon brick, relieved by terra-cotta mouldings. Other improvements will be effected to render the building of a more attractive appearance than at present. The kursaal will also be of red brick, and its principal entrance will be facing the promenade and close to the Queen's Hotel.

THE student of Oriental Archæology would do well if he paid a visit to the Guildhall Museum, where, among the many and interesting relics of ancient London, he would find some specimens of Art from Babylonia and Nineveh. There are two fine statues of the King Gudea (B.C. 2500), executed in green diorite, but alas! like most of the monuments of this kind, they are both headless. One of these is represented in a sitting position, similar to the famous statue of this king in the Louvre. The other is standing, clothed in a long robe reaching to the ankles. It was at one time thought to represent the god Nebo, or the goddess Ishtar, but this view can hardly be upheld when compared with other monuments. There is also a sun-dried brick, inscribed with the names and titles of Nebuchadnezzar II., B.C. 539. These bricks are found in large quantities all over Babylonia, and were used for building purposes. Nineveh is represented by two large slabs of alabaster from the palace of Assur-nazir-Pal, representing one of the Igigi or spirits of heaven, and one of the Anuna Ki, or spirits of earth, in attendance before the sacred tree. Across both of these slabs is a twenty-line inscription in Assyrian, setting forth the names and titles of Assur-nazir-Pal, and a prayer to the great gods of Assyria.

BENVENUTO CELLINI'S two treatises on goldsmiths' work and bronze-founding have been translated for the first time into English by Mrs. George Simonds. The text used is that published in Florence in 1568. The work will be valuable not only from a technical point of view, but as literature, for everything Benvenuto wrote was stamped with his strange personality—a fascinating one in spite of its cynical badness.

IT is expected that in a few months the new subterranean system of main drains, now being constructed in Paris, will be complete and ready for use. At present the work is being carried on between the Clichy Gate and Trinity Place, close by Trinity Church, a distance of about 1 3·5 miles. This canal will tap all the sewers and aqueducts from the heights of Menilmontant, the districts of Belleville, La Villette, La Chapelle, and Montmartre, and the intramural quarters of St Martin, St. Denis, Marais, and Vivienne, as well as the Place de l'Opéra and the Boulevards. The tunnel, which is about 6 yards in height and 5 wide, is being bored by machinery similar to that employed in London in making the tunnels for the electric railways. The men work in a chamber with a shield at one end, which is forced forward by the action of six screw-jacks worked by electricity. As the shield advances the masonry is built up, and the completion of the tunnel thus advances by a few yards every day, the average being 6½ yards daily.

THE Simplon Tunnel can hardly be begun before the end of 1897, or early in the year 1898. It is estimated that the actual period of operations will cover a space of only two years after the work of piercing the main tunnel has once been begun. International traffic will only require one line of rails at the beginning, but provision will be made for laying a second line throughout the tunnel and along the whole length of the system.

SOME alarm has been caused at Conington, near Huntingdon, in consequence of the threatened fall of the Parish Church. An examination of the edifice has been made by Mr. Thompson, of Peterborough, who reports that a very considerable and serious settlement has taken place practically in all parts of the Church, including the fine old tower. The whole of the north wall and its buttresses have had to be underpinned, and it is feared that a storm of wind might at any time blow down the greater part of the Church, which is of great historical interest with the Scottish Royal family, for it contains a monument of Robert Bruce, King of Scotland, who died A.D. 1339. Prince Henry of Scotland, who became Earl of Huntingdon, was possessor of the manor of Conington, and his monument is also in the Church.

THE Edinburgh Carlyle Memorial Committee has decided that the fittest monument will be a replica in bronze of the late Sir J. E. Boehm's seated statue on the Thames Embankment. This statue was done from the life in 1875, when Carlyle was in his eightieth year. The sanction of Boehm's trustees to proceed with the replica has been obtained. The work will be executed under the supervision of a Scottish sculptor. We believe that the idea of a replica originated with Lord Rosebery. In this connexion it may be mentioned that Mr. Thomas M'Kie, Advocate, has presented Woolner's bust of Carlyle—which he purchased from the trustees of the late Charles Jenner—to Edinburgh University.

SEVERAL gifts of antiquities have been made to St. Helen's museum during the past month, including specimens of Egyptian-Libyan, circa B.C. 3100, discovered at Negada, 30 miles north of Thebes, by Professor W. M. Flinders-Petrie, LL.D., from Mr. J. O. Swift. Mr. J. L. Hodgson has presented to the museum an old sword found at Larkhill, Preston, in 1830, during an excavation, when many other relics of war and human remains were discovered. The sword was supposed to have belonged to an officer of the rebel army which was defeated by Cromwell on the 17th August, 1648.

THE news that the next Winter Exhibition at the Royal Academy is to consist exclusively of the works of Sir John Millais is exceedingly welcome. Not only does it mean that we are to have a further respite from the now obsolete old master shows, but it also guarantees the presence at Burlington House of a collection of great Artistic importance and very wide interest. Now that the Academy has broken through the tradition that their galleries must be annually occupied by the pictures of painters of other centuries, it is to be hoped that some better scheme for the advancement of modern Art than the glorification of the work of the past may be devised during the interval available for reflection. It cannot be doubted that the inflation in the prices given for often unworthy pictures by long-deceased Artists, an inflation which has produced a corresponding depression in the modern market, is largely due to the annual exhibitions held by the Academy. It is scarcely the function of such a body to concern itself with the Art of yesterday.

SO many important events have lately occurred in Southern Africa that the progress of Mr. Rhodes's great scheme of an African Trans-Continental Telegraph has been almost ignored. Despite a temporary suspension of work, owing to the Rhodesian war, the projected connection has so far advanced that (with the exception of a few hundred miles between Mount Darwin and Tete) communication now exists from Capetown to Zomba, in the British Central African Protectorate. This represents a total distance of nearly 2,400 miles. Material for the line is lying all along the route from Mount Darwin to Matatima, and the wire is stretched on trees as far as Tete. Zomba is only some eighty miles from Fort Johnston, and the next stage will be from Karonga (north-west of Lake Nyassa) to Kituta (south-east of Lake Tanganyika), about 230 miles.

BY the election of Mr. J. S. Sargent to fill the vacancy caused by the retirement of Mr. G. F. Watts, the traditional tendency of the Academy to do what most people expected least has been once more exemplified. That Mr. Leader, who has lately narrowly missed promotion on more than one occasion, should be again passed over was certainly not anticipated, and hardly anyone outside Burlington House would have been disposed to fortell the advancement of an Associate whose actual admission within the Academy is of such recent date. Apart from the matter for regret in the continued neglect of the claims of the landscape painters, there is no fault to find with the choice of Mr. Sargent. He is one of the cleverest of living Artists, a worker to whom we may fairly look for great achievements, and the acknowledged leader of the modern school. His capacity as a portrait painter is quite remarkable; and as a decorative Artist he has proved himself to be original in ideas and skilful in method. The influence which he should be able to exercise upon the policy of the Academy can hardly fail to be valuable.

IN connection with Sunderland Workmen's Dwellings' competition there were fifty-eight sets of designs submitted, and Mr. J. Slater, of London, recommended that the first award be given to Messrs. Robert Angell and Martin B. Perry, Joint Architects, of Garrick Square, York Buildings, Adelphi, whose plan, under motto "Pro Artifice," shows accommodation for 468 people in sixteen blocks of dwellings, with separate entrances and staircases. Each tenement is completely isolated, and contains all the accommodation of an ordinary cottage dwelling. The total cost is estimated at £20,000. The second premium the assessor awarded to "Homes," submitted by Messrs. Jacob and Brand, of 34 and 36, Gresham Street, E.C., whose design is estimated to cost £23,351 in carrying out, and provides for 448 people. The third premium is taken by "Salis populi suprema lex," Messrs Houston and Houston, of 13, Furnival's Inn, E.C., with provision on plans for 402 persons, at an estimated cost of £20,000. The Corporation of Sunderland has confirmed the assessor's award.

THE antiquated panel, representing a view of Furness Abbey has been removed from the house at the corner of China Lane, Lancaster, formerly occupied by Mr. N. Molyneux, and is about to be placed in the Storey Institute. Another interesting painting on plaster, at the foot of the stairs, is said to be a portrait of the Countess of the seventh Earl of Derby, Charlotte de la Tremouille, the defender of Lathom House. Her husband was away in the Isle of Man, and the intrepid lady defended the house for months. Her husband was subsequently beheaded at Bolton, and his head now lies in a separate box in the Derby vault in Ormskirk Church. The portrait of the Countess, if the painting be that of the distinguished lady, is in the possesion of the Corporation, and will probably find a home in the local museum. It is satisfactory to know that these two interesting relics have been saved from destruction. To Mr. Cook, the borough surveyor, is due the credit of saving the last-named picture.

DR. VAN DER HEYDEN, of Yokohama, Japan, has built a "hygienic house" which deserves notice. The walls consist of parallel plates of ground glass several inches apart, with a concentrated solution of alum or salts of soda between them. These are fixed in metal frames, by which they are built together. The roof is not translucent, and is made of materials which are impervious to heat, thus keeping out the sunshine, and holding in the warmth of the rooms. The house is entered by at door underground, to which a stair leads. The air also enters underground, and passes through a microbe filter of cotton wool and glycerine. Is circulates through the rooms by means of gratings and escapes under the roof.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

ADDRESS TO THE STUDENTS AT THE DISTRIBUTION OF PRIZES, BY PROFESSOR AITCHISON, ON MONDAY, JANUARY 18TH.

IT has been the custom for the President to say a few words to the students on these occasions. You have had from Mr. MacVicar Anderson, when he was President, some admirable remarks on planning, besides those on professional brotherhood, and most excellent advice from my learned predecessor, Mr. Penrose, who found out for us all, and the world, the optical refinements of Greek Architecture. He was trained in the reverent study of the antique from the actual remains of Greek and Roman structures, and is not less learned in those of the middle Italian Renaissance, which he has also measured, and we have heard from him that Palladio alone of the Renaissance Architects had learned the secret of the grand Roman style. However much I may be inferior to my predecessors in weight and eloquence, I think I may say that I cannot yield to them in my ardent desire for the improvement of our English Architecture, nor for giving all the advice and all the knowledge that can be imparted in a short speech to the students, in whom we see the future Architects of our country.

NO TEACHING WILL GIVE GENIUS

or parts to learners, but I think I may say, without fear of contradiction, that untiring diligence is an absolutely necessary qualification, and this has been so evident to those who possess genius, that Buffon defined it "as the Art of taking trouble," which we all know it is not; but diligence is so absolutely necessary for the development of genius that it is excusable to confuse the necessary servant with the master. I would call your attention to the works of Lord Leighton, now being exhibited at the Royal Academy, and also to the large collection of his studies at the Gallery of Fine Art in Bond Street. The studies there are but a portion of the innumerable ones he made, and you will see by these that the exquisite perfection he attained in his finished pictures and statuary resulted from the most careful and accurate study of nature; that there is not a form, an extremity, or a piece of drapery that was not perfectly studied before it was painted or modelled. Necessary as indefatigable diligence is, the longest life is only too short for the attainment of even a competent knowledge in the master Art we profess, which embraces so many various Arts, and requires a knowledge so wide and so various, and qualities of mind that are rarely found in one person. It is a great saving of time to have a map, a compass, and a knowledge of the streams and currents, of the reefs and sandbanks, before we embark, not only to prevent shipwreck, but also to avoid great deviation from our course, so that there may be no waste of labour, however strong and indefatigable we may be. Some of the wiseacres of the last century, during a dearth, employed labourers to dig holes in the ground and fill them up again, and although this kept the labourers' muscles in training and prevented the loss of habits of diligence, the crop that should have resulted and rewarded the labourers for their exertions was non-existent; nothing is more disheartening than useless labour. Many of my own early years were wasted in inking in drawings, and I could not help wishing at the time that I had been a shoemaker, for stitching shoes could not be more irksome, and would have prevented some people from getting their feet wet or worn. The creation of something useful would have mentally compensated me for the irksome labour, while no one was benefited by my inking in drawings. The wisest saying of the Delphic oracle was "Know thyself," and it can be as usefully applied to themselves by those who study Architecture as by others in the various exigencies of human life. It is obvious that if one knows one's self one can best choose the part of Architecture most fitted to one's aptitude, and one can map out those parts that are

ESSENTIAL TO BE LEARNT;

by this means not only is much useless labour saved, but that worst of all shipwrecks is averted, the having embraced a profession that is not congenial and for which one finds one's capacities are not fitted, and this, too, when it seems too late to throw up the profession. I recollect hearing of a pupil of Laing's—the Laing who built the Custom House—who found Architecture so uncongenial that he embraced the law, and became a Vice-Chancellor; as Alfieri, the barrister, became a celebrated Architect. It is within the knowledge of most men that many of those who have become distinguished have changed their profession; but these men have mostly had a natural aptitude for the subject they eventually embraced and excelled in. To those unfortunates who have embraced Architecture but have no aptitude for it—nor, as far as they know, for anything else—I can only recommend the behaviour of Scotchmen under the circumstances. I think I may say that Scotchmen are the only people of the United Kingdom who have a good education, and by this I mean a moral education; each man who finds himself in this position says to himself, "This is my only chance in life; I have no natural aptitude for it, but I must try by application and striving, in season and out of season, to make up for my lack of aptitude"; and you rarely find that they fail in whatever walk of life they have embraced, for they mostly gain a good position. Youth is naturally enthusiastic and ambitious, and would fain know everything connected with its occupation. Most students have probably read Bacon's programme of mastering all human knowledge; but we are not all Bacons, and had Bacon lived now, when the memory wanted for one small branch of science is greater than that given to most men, he would never have set out on so impossible a quest. A student, for example, has to see what a column or stanchion will safely bear, and so he wants to know the laws of flexure, and finds himself referred to Poisson; he gets Poisson's book, but finds that to understand it he must master the differential calculus; he gets a treatise on that, but finds that it would take him his whole life, if he could learn it then; yet, as the multiplication table is to arithmetic, so is the differential calculus to the higher branches of mathematics; he therefore comes to the old conclusion "that everybody cannot do everything." It is, perhaps,

A LAUDABLE AMBITION

to take one of the great Architectural geniuses as a pattern, but you should have common sense enough to calmly and dispassionately review your own powers and capacities before entering on a serious attempt at imitating his achievements. There is only one genius in several millions of people who is blessed with the capacities of the great Architects, who has the making of a Brunelleschi, an Alberti, a Peruzzi, a Bramante, a Leonardo, or a Wren, and I only wish more of those who find themselves incompetent would abandon the profession. The average capacity of mankind is not great, and yet each one wishes to be the bright particular star of the world. Each unit of mankind cannot endure the idea that his capacity is not equal to that of the greatest genius, but he will admit that he is deficient in industry, and in that judgment which guides a man to concentrate himself on the principal aim of his life. This shows us one of the weaknesses of humanity—to be ashamed of admitting that which is a pure accident, over which we have no control, and to admit, without blushing, our neglect of those things that are in our power. It is the fashion to encourage the belief that all men are born with equal capacities, as it is to suppose that every epoch is equal in mental and moral power, and that the difference depends on teaching, as if cutting and polishing a flintstone would turn it into a diamond. I recollect Roebuck talking this sort of nonsense at Sheffield, and after pointing out what John Stuart Mill could do at thirteen years of age, who had then mastered Greek, Latin, and mathematics, he says, "But if John Mill could do what he described, why may not John Brown do as much, or nearly as much?" The subjects that seem to me of the utmost importance are—firstly, the recognition by students and their teachers that

ARCHITECTURE IS A STRUCTURAL ART,

and that until this is realised and acted on no great improvement is likely to take place. All the materials we use have weight, and in their ultimate position have size too, and in the positions they are placed have, as well as downright pressure, cross and diagonal strains. All these strains occur in almost every building, and must balance one another, or else the building becomes deformed or ruined, or tumbles down. The theory of the strains that produce equilibrium is called statics. The Architect with the keenest observation, the strongest memory, and the greatest experience is a mere child compared with one who is a master of statics and the strength of materials; secondly, we all admit that without proportion buildings and their parts are unsightly, and we endeavour to train the eye to good proportions by studying classical buildings; their proportions, however, mainly give the statical results gained by experience at the time the buildings were erected; if these studies are pursued too long they are apt to make us fall in love with a state of knowledge inferior to that which they now possess. That friend of our youth, Mr. Ruskin, partially enlightened us on this subject, by pointing out the infinite variety of

PROPORTIONS IN NATURE,

most of which we find agreeable to the eye, and we now know that what might be called the fundamental proportions depend on the weight to be carried, the strength of the material, and its height and size. Statics allow us to go further, for, knowing the strains to be borne, and where they come, and the strength and peculiarities of the material, we may mould it into various forms, either by cutting away useless parts, or by adding to the bulk in certain directions. By statics we know where there is a change of function, and where various strains are concentrated, and these parts call for some expression, and the only way of expressing them Architecturally is by moulding. The proper arrangement of each chamber for the duties it has to perform, the collocation of the different chambers, and the access to them by means of halls or passages without unnecessary waste of room, is commonly denoted by the word "planning," and in reality it includes much more, as, for instance, their proper lighting, aëration, ventilation and warming; in fact, the enabling us to make the different portions fulfil their ends is the foundation of all good Architecture. But man wants more than this; he wants not only certain parts to be more striking than others, but to make the whole have such an external appearance that it tells us the use of the building and evokes the emotions proper to its use. All we have to deal with outside are walls and roofs, but we may want porticoes and porches, towers, lanterns, spires, and domes for certain uses and under certain circumstances. Inside we have much the same elements, but we have as well, floors, ceilings, and staircases, and although we always want floors to be flat, there are circumstances where steps are required to give elevation and dignity to certain parts, and there are also certain shapes which add beauty or dignity to the rooms, and if the ceiling is vaulting or domed we may want it made striking or beautiful. One particular point is usually missed in speaking of Architecture—the skill in combining the junctions between forms of diverse or opposed shapes, and of marking the different changes of function where they occur, or of marking the concentration of strains. These, as I mentioned before, are accomplished by moulding, and these mouldings are to give us varieties of light and shade, and to have a sort of logical sequence in their forms. The Greeks were the first and the

GREATEST MASTERS OF MOULDINGS,

which were, of course, shaped to be played on by brilliant sunshine and in a clear air. The Roman mouldings were only badly-designed Greek ones with infinitely less variation. The second masters of mouldings were the Gothic Architects, who designed them for the misty climates and feeble sunshine of the countries they lived in. They were as logical as the Greeks, though destitute of their refined Artistic sensibilities; and since then the study of profiling has been abandoned. I say nothing of sculpture, in which I include naturalistic as well as vegetable and animal forms, for this is another Art, but it must be exercised with due regard to the Architecture, and must neither be incongruous nor destroy the scale of the part, the chamber, nor the building. You cannot expect sculpture from Architects, as it takes the life-study of an Artist, and Architecture alone may be said to embrace the life-studies of many men, men of science, men of ingenuity, and men of Art. When, however, the Architect is so transcendent a genius that he can master his own Art and that of another Artist, he excites our

wonder and our admiration; but to be a bad Architect and an execrable sculptor too is not a combination to be admired, and still less to be proud of. It merely entitles the possessor to Martial's compliment, who called the amateur who did so many things nicely a great meddler. There are one or two more points that I must mention, but perhaps

THE INFLUENCE OF THE AGE,

is the most important; this in one direction is what we call the taste of the nation, and it inevitably modifies the individual taste of the Artist. The old proverb says, "The mind of man is greedy of novelty," and novelty in itself has, no doubt, a certain charm, but it should only be that difference from what has gone before which must inevitably follow from those thousands of things, circumstances, and temperaments that distinguish one age from another. It shows us, too, how ridiculous antiquarianism is when it takes the place of Architecture. We are not Greeks, Romans, or Byzantines; our age is not Romanesque, nor Gothic, nor Renaissance, and if the Architecture of the day is to charm the age it must discover and embody the desires of the age. The paraphrasing of deceased styles only charms us in so far as our civilisation approaches that of the date of the building paraphrased, and the building wants novelty too. We naturally do not admire Gothic paraphrases, as the desires of those times are so far removed from our own inclinations. The Gothic Architect's passion for geometry is very far from being ours. The nation, too, has

LOST ALL DESIRE FOR ART,

which is the embodiment of ideas, by which alone the bulk of the people can be taught; now a little scientific jargon, embodied in a newspaper paragraph, or an Act of Parliament, is expected to fulfil the function of Art, but any person of observation can see it does not. Art, which should proclaim to the most uneducated the various inestimable advantages obtained by being free, by having a voice in the election of its representatives, by belonging to a great nation with colonies, by free teaching, by free surgery and doctoring, by free lunatic asylums, by the free housing, clothing, and feeding of aged paupers, by free libraries, by public parks, gardens and baths, by free museums and free picture galleries, knows nothing of it, because it is not brought to their eyes by Art; in fact, so far is this from being the case that all these benefits, if not unknown, are unnoticed, because Art is suppressed in all the buildings which minister to the people's wants. Such buildings should be of the most impressive appearance, and adorned with sculpture expressive of their use. Splendid tombs and monuments in public places should perpetuate the memory of the great warriors and statesmen, the great inventors and industrial leaders, the great poets, the great writers, musical composers, painters, sculptors, and Architects, whose works will make the nation live in the memory of the world when its greatness and glory have departed. Architects can but slightly modify the desires of an age, as there are so many thousand things, conditions, and influences that combine to mould

PUBLIC TASTE.

All they can do is to have the attainable knowledge and skill required for their Art, and if invention in Architecture is extinct, we must try to recreate it. I hope it is not extinct, but if it be we still have the mountains, rocks, and peaks, the caverns and grottoes, the woods, the trees, and the plains, the rivers and seas, the clouds and the heavens to stimulate us to embody the lessons we can learn from these natural effects; not to speak of the lessons we can learn from the past Architectures of the world. I cannot help thinking that if the born Architect should arise and be single-eyed in his devotion to this grand Art, we might hope to see it again flourishing, as in the grand epochs of the past. Antiquarianism is not content with gnawing out the vitals of Architecture, but is destroying our faith in its being still alive. Another of the points that wants attending to is the study of the means employed by the great Architects of the world to evoke the emotions proper to the use of buildings, and particularly to those dedicated to the adoration of the Almighty. Students are naturally apt to seize upon features that they admire, and use them in the most incongruous way, as if the adornment of a temple or a palace were appropriate to a labourer's cottage, a coal store, or to a tailor's shop, whose owner makes the human form divine ludicrous and ignoble. Elegant simplicity of appearance should be the Architect's aim for most of his buildings, as his aim should be to produce horror and repulsion in a prison. Our great object now is to be sure that we have done our best to learn all that we ought to learn. How delightful would it be if we were as sure of our progress as were the Gothic Architects, and instead of being as careful of every scrap left by a semi-barbarous age as if it had come from heaven and were sacred, we could use with a light heart a good stone, as they did, for our own work, and build in their worked part we have surpassed. I may say this was not confined to Gothic days; the Greeks used the sculpture they had surpassed for filling in holes and trenches, and Mr. Purdon Clarke showed me a Saracen wood block that had once formed a door-head in a destroyed mosque, the back of which had been used for the work of the day, while the carved part, worked in a former age, had been built in. If the Institute wants to start this work of

FUNDAMENTAL IMPROVEMENT,

it will see that its examinations are not confined to students alone, but are to be passed by every one who joins it, and that everything that is not Architectural is excluded from the examinations, and that those things alone are included that every Architect ought to know to be worthy of the name. No one can say that the Arts of surgery and medicine have not enormously advanced since the surgeons and doctors had to pass a strict examination in the subjects of these Arts. No sane person can suppose that if Architects were required to show that their knowledge rested on a solid foundation of science and æsthetics Architecture would not rapidly progress.

At the close of the President's address a review of the designs and drawings submitted was given by Mr. William Milner Fawcett, M.A., Vice-President.

IT is in contemplation to form a local syndicate for the erection of a new Town Hall at Killarney.

THE ratepayers of Islington have rejected Mr. Passmore Edwards's offer of £10,000 towards the cost of erecting three public libraries in the parish.

THE Works Committee of Dundee Town Council has authorised contracts to be taken for paving High Street, Commercial Street, and Murraygate with granite setts.

A WINDOW, to the late Mr. Alexander Macmillan, publisher, and his son, the late Mr. Malcom Kingsley Macmillan, has been placed in the Parish Church at Bramshott.

HALES PARISH CHURCH is now in process of restoration. This picturesque little building has now been thoroughly overhauled, and it is expected that the Bishop will open it in a few months' time. It was necessary to spend a large amount of money on the roof and windows in order to make the Church waterproof.

COLONEL J. T. MARSH, R.E., Local Government Board Inspector, has held an inquiry at Truro into the application of the Town Council for sanction to borrow £690 for the purchase of a site in Union Place for the erection of a technical school and Art Gallery.

THE Queen's new yacht will be built entirely of steel, and will have a length of about 400 feet, and a beam of about 52 feet. She will have twin screws, and the steam to work her composite engines will be supplied by 18 or 20 water-tube (Belleville) boilers. The maximum speed is to be 23 knots per hour, but for all ordinary occasions the speed will not be more than 19 or 20 knots.

CONSIDERABLE alarm has been caused in the neighbourhood of the Whins, at the north-eastern boundary of Alloa, by the subsidence of the ground at several points between the Old Toll Road Bridge and Hilton Brickwork. The subsidences vary in length from 10 to 20 feet, and in depth from 5 to 25 feet, the largest being in the vicinity of Hilton. A house is in course of erection in close proximity to the fallen-in ground, and it has been found necessary to stop the operations. The cause of the subsidences is supposed to be the giving way of old underground workings, which stretch in all directions in this particular part of the Alloa estate.

Professional Items.

ABERDEEN.—The Aberdeen Town Council has agreed to send a deputation to wait upon the Postmaster-General and urge upon him that the sum of £20,000 he has already stipulated as the sum to be spent on procuring a site for the new Post Office for the city, is quite inadequate for a suitable and satisfactory site; and that a sum should be granted sufficient to have the new offices erected in Union Street.

BOOTLE.—At a special meeting of the School Board, to select a plan for the new Gray Street School, it was decided that, subject to the consent of the Education Department, the plan for the Gray Street school sent in under the *nom de plume* of "Left-hand Light" be adopted, and that the Architect be appointed Architect for the school upon the usual conditions. The cost of the new school, which will accommodate about 1,100 children, is estimated to be £7,297. The Architect called in by the Board to advise upon the plans was Mr. Paul Ogden, of Manchester. Fifteen sets of plans were sent in. The successful Architect is Mr. Cox, of the firm of Cox and Marmon, Liverpool and Bootle.

BRADFORD-ON-AVON.—A building for the purposes of a Technical Institute for Bradford-on-Avon and neighbourhood has just been completed in Junction Road. The total cost is about £3,900. The frontage is 75 feet to Junction Road, with a depth of 45 feet. The style is a form of English Renaissance. From the centre of the hall a wide staircase runs to the first floor, stairs beneath communicating with the heating chamber and store rooms. On the first floor is a chemical laboratory, and the lecture theatre is also on the first floor, in the centre of the building and adjoining the chemical laboratory, provision being made by specially ventilated fume closets for carrying off the gases emitted from chemical experiments. There is also on the first floor a large room to be used for teaching drawing, building construction, and other technical subjects.

BRIDGWATER.—The Town Council, on Thursday, considered an amended scheme for the improvement of the River Parrett navigation. The new scheme, prepared by the borough surveyor, provided for the cutting off of some of the awkward bends of the river, at an estimated cost of £45,000, the estimate for Mr. Wheeler's original scheme being £100,000. The Council adopted the amended scheme by fifteen votes to five.

BROADHEMPSTON.—The Broadhempston Church Restoration Committee has accepted the tender, at £590, of Mr. R. F. Yeo, of Torquay, for the restoration of the roofs. Mr. E. Sedding is the Architect. The work is to commence on Feb. 1st.

BURNTISLAND.—The Harbour Board met last week, when offers for the construction of a new deep-water dock were before the meeting. Mr. Carlow, chairman of the Board, presided. The committee's report on the tenders received from the selected contractors recommended that the offer of Sir John Jackson, Westminster, be accepted, and the meeting unanimously adopted the committee's recommendations. The estimate of Messrs. Meik and R. Henderson, engineers, as to the probable cost of the new works was £300,000, and the tender accepted, it is understood, is between £250,000 and £260,000. The new dock is to have a water area of fully ten acres, and a depth at spring tides of 29 feet. As the firm of Sir John Jackson are well forward with the dock extension works at Methil, it will be possible to enter on the new contract at Burntisland with little delay.

CAMBRIDGE.—A meeting was recently held in St. Barnabas' Schoolroom, for the purpose of discussing the erection of a new Parochial Institute. A site has been given by the Master and Fellows of Gonville and Caius College, but has not yet been conveyed. The Building Committee of the Corporation accepted the plans on December 8th. Plans have been drawn up by Mr. Fawcett, the Architect, and Mr. Saint estimates the cost at £1,400 or £1,500, and this, with the Architect's fee, brings the total up to nearly £1,600.

CLEVEDON.—Clevedon has just been provided with a commodius club for Lileral working men, from plans by Mr. H. G. Hewlett. The new building has been erected on the site of the former club in the Triangle, only a few yards from the railway station. The exterior has a neat and effective appearance, and it is proposed in the near future to extend the front to twice its present length, providing it with two additional bays and a corner tower. This contract was carried out by Mr. W. A. Green.

CRAIGIE, N.B.—At a special meeting of the Police Commission, held to consider the Works and Paving Committee's recommendation as to accepting offers for the construction of the outfall sewer for Craigie district, the Lord Provost stated that the Committee recommended that the offer of Mr. P. Girrity, contractor, to complete the work for £1,876 be accepted. A resolution was passed adopting the recommendation.

FARSLEY.—At a meeting of Farsley Liberals, last week, a plan of a proposed new club was submitted by Mr. W. D. Gill, Architect. The estimated outlay is £2,250.

LEITH.—At Leith Dean of Guild Court last week, the following warrants were granted: To Henry Ward, to erect 27 self-contained houses, two storeys high, at Newhaven and Dudley Gardens; to the Edinburgh Ropery and Sailcloth Company, Limited, Bath Street, to erect a spinning mill and engine-room, one storey in height; and to W. and J. Jenkinson, to make alterations on their premises at St. Andrew Street and Riddle's Close.

LONDON, N.W.—The Baths and Washhouses Committee of the St. Pancras Vestry, has selected Bower Cottage, Leighton Road, Kentish Town, as the most suitable site in the northern division of the parish on which to erect the baths and washhouses so greatly needed by the dense population, mostly working people, in North St. Pancras.

LOUGHBOROUGH.—At a meeting of the Town Council, held on the 4th inst., a letter was read from Joseph Griggs, J.P., offering to erect, and present to the town, public baths, at a cost of £3,000, to commemorate the completion of the 60th year of Her Majesty's reign, upon a site to be provided by the Corporation. The borough of Loughborough has previously benefited by the generosity of Mr. Griggs, who held the office of mayor for the first two years after the incorporation and the office of high sheriff of the county during 1895. Mr. George H. Barrowcliff, Architect, of Loughborough, has been intrusted with the work.

MANSFIELD.—With respect to the widening of Leeming Street, the chairman of the Roads and Buildings Committee of the Town Council and the borough surveyor have interviewed the owners of property in the street, and they have received the following offers:—Mr. J. Hudson, £1,500; Mr. R. Woods, £1,550; Simpsom's trustees, £4,000; Mr. A. J. Cursham (for fiontage in Leeming Street and Clumber Street, acd setting back premises), £1,250; Mrs. J. Wilson, £21 per yard. The committee has resolved that the offers of Mr. J. Hudson, Mr. R. Woods, Simpson's trustees, and Mr. A. J. Cursham be accepted, and the Deputy Town Clerk has been instructed to enter into a provisional agreement with Mrs. Wilson for the purchase of a piece of land in front of her house.

MONTROSE.—The Free St. George's Church, Montrose, after having undergone extensive alterations and improvements during the last three months, was reopened a few days ago. The principal structural alteration has been the erection of a porch facing George Street. On the façade of this porch, which forms the principal entrance, is carved the words "*Nec tamen consumebatur*," the motto of the Free Church, on a ground work representing the burning bush. A corridor runs round the back of the area, and from this corridor, which is partitioned off, access can be obtained to any part of the Church by means of five passages. The interior has been arranged in a semicircular amphitheatre style. The Church has been reseated, and the pews are constructed of pitch pine with all the most modern conveniences. The walls are painted in a warm tone of pink, with the dado lining in imitation of pitch pine. Above the dado runs a band of Lincrusta Walton, with the floral scroll-work picked out in colour. All the windows have been filled with Cathedral glass in an effective manner. Messrs. Matthew and M'Kenzie, Aberdeen, were the Architects, while the contractors were:—Masons, Messrs. Reed and Burnett; joiners, Messrs. J. and W. Craigie; glazier, Mr. Douglas; heating, Mr. Alexander Moug; plumbers, Messrs. Christie and Smith; and painter, Bailie Adamson.

NEWPORT.—The directors of the Newport and County Infirmary, as a result of the decision of the assessor, Mr. N. G. Pennington, of London, to whom the plans for the proposed new hospital at Newport were referred, have awarded the first premium of £100 to Mr. Richard J. Leirll, of 46, Victoria Street, London; and the second premium of £50 for the second best set of plans to Mr. J. T. Harnett Harrison, of North John Street, Liverpool.

PAISLEY.—Plans of a new Board School, to be erected in Carbrook Street, Paisley, at a cost of £8,000, and to accommodate 836 pupils, have been passed in Paisley Dean of Guild Court yesterday.

PERTH.—A new block of buildings is in course of erection at the corner of New Scott Street and South Street, Perth, for Bailie Wright, proprietor of the Perthshire Courier. The buildings are to be built of stone, with polished face and dressing, from Polmaise Quarries, Bannockburn, and will have two facades of 60 feet and 54 feet respectively to New Scott Street and South Street. The roofs will be covered with slates from Port Dinorwic Quarries. The cellar areas will be lighted by street pavement iron prism lens lights, made by the Hayward Bros. and Eckstein, and the ironwork is in the hands of Mr. Barker, engineer, New Row. The contractors for the whole works are:—Mason and brick work, Alexander Beveridge, builder, New Row, Perth; carpenter and joiner, Thomas D. Falconer, contractor, Shore, Perth; plaster and cement work, Daniel Campbell, Bridgend; slater, James Buchan, King Street, Perth; glazing, Edward M'Conocher, South Street, Perth; iron and steel contract, George Bailie, New Road, Perth. The plans, &c., have been executed by ex-Bailie Smart, Architect and Surveyor, Morgan's Buildings, New Scott Street, Perth.

ROTHERHAM.—At Rotherham, consideration is being given to a scheme for the restoration of the Parish Church. It was stated at a recent meeting that the worst thing was the choir seats, the only bit of seating in the Church that was not oak. The choir seats were a great eyesore. Behind the present choir seats there were two oak seats richly and beautifully carved, and it was suggested to brings these to the front in keeping with the rest of the Church, and provide oak seats sufficient for the choir. The cost of this improvement would be about £80 or £90. The proposal to erect a screen of solid wood with linen scroll or carving, and above the solid wood some open carved work, so as not to intercept the view of the chancel, the height not to exceed 5 ft. 3 in. The gas brackets and coronas also needed attention. It was further suggested that the chancel should be carpeted, and the rough stone at the sides of it covered with cloth. Plans from two local Architects had been obtained for the screen, which were submitted.

SUNDERLAND.—The following Architects have obtained the premiums offered by the Sunderland Town Council for the best designs for workmen's dwellings at the east end of the town:—(1) Messrs. M. B. Perry and R. Angell, Garrick House, London, W.C.; (2) Messrs. Jacob and Brand, Gresham Street, London, E.C.; (3) Messrs. Houston and Houston, Furnival's Inn, London, E.C.

SWANSEA.—Mr. G. E. T. Lawrence is the Architect for the new school of St. Thomas, at Swansea, which, when completed, will be one of the finest in the district. It will consist of three departments—the infants on the ground floor, girls on the next floor, and the boys on the top, the three departments being made to accommodate 1,200 children. Each department is planned with a large central hall, with class-rooms leading into it. The building will be of brick, with fireproof and wood-block floors throughout. It is estimated to cost £10,500. The builders are Messrs. J. and F. Weaver, Manselton.

TRIM, IRELAND.—The main building of the new Church of St. Patrick's, Trim, is now nearly completed, and the tower is far advanced. A considerable sum of money is yet required to complete the structure and to furnish and decorate its interior. Mr. Hague is the Architect, and Mr. Nolan, builder, the contractor.

WOLVERHAMPTON.—This Church, which has been closed for extensive alterations, was reopened last week. The structural changes which have taken place comprise the removal of three bays of each of the side galleries and the whole of the high-backed pews, and free benches on the ground floor, together with the upper galleries which had provided accommodation for about two hundred children. The choir has been extended one bay further into the nave, the altar has been elevated so as to render it visible from all parts of the Church, and the sanctuary has been enlarged by the addition of a curved step and altar-rail extending into the choir. A vestibule has been formed at the west entrance, with cloth-covered folding doors. The floor has been laid with oak blocks, and oak open seats provided. A new oak pulpit on a stone base replaces the former structure. The interior of the Church is being redecorated by Messrs. Lewis and Swindley, of Wolverhampton; and a new organ, constructed by Mr. Deal, Kent, will be in its place about March next. The works are being executed from designs by, and under the supervision of, Mr. Fred. T. Beck, Architect, Darlington Street, Wolverhampton.

In a report on the educational work of the Wolverhampton Town Council recently prepared, Mr. S. T. Mander suggests that the erection of a free library building in a more central and prominent position should be at once proceeded with. A sum of £15,000, it is estimated, would be sufficient for this purpose, including the interior fittings.

THE Chester Town Council has adopted a scheme for the erection of public baths in the city, at a cost of £8,000.

THE Baths Committee of the Hackney Vestry has decided to open the new public baths for the parish at an early date in February.

MR. JAMES CARSWELL, engineer-in-chief to the North British Railway, died on Wednesday morning last, at Edinburgh.

THE Herefordshire County Council has approved of the proposed enlargement of the County Lunatic Asylum, at a cost not exceeding £32,500.

MISS HELEN GOULD, the daughter of Mr. Jay Gould, has given £50,000 to the Presbyterians of Roxbury, for the purpose of building a new Church.

THE trustees of the David Lewis (Liverpool) Fund have decided to give another £20,000 towards the rebuilding of the Liverpool (Northern) Hospital, thus raising their gift to £80,000.

THE Treasury authorities have just received from the Chief Constable of Buckingham a collection of 28 coins which were recently discovered at the village of Whitchurch, through the falling in of the ceiling of an old house. They are all silver coins belonging entirely to the period covered by the reigns of Elizabeth, James I., and Charles I. The bulk of them are in a good state of preservation. The oldest date decipherable is 1565.

THE death is announced of Mr. J. W. Beck, of Michwood, Merton Park, who was for many years secretary of the Grosvenor Gallery, and subsequently of the New Gallery, 121, Regent Street. Mr. Beck was himself a capable water-colour Artist, and took charge of the British Fine Art collection sent to the Chicago Exhibition in 1893.

A LOCAL Government Board inquiry has been held at Wigan, regarding the application of the Corporation for a provisional order for power to obtain a supply of 200,000 gallons of water daily in perpetuity from the Manchester Corporation's supply at Lake Thirlmere. It was proposed to construct a line of pipes from the service reservoir at Wigan Lane to the aqueduct leading from Thirlmere to the city. The cost of the proposed work was estimated at about £12,000.

SHEFFIELD BUILDING.

A RECORD YEAR.

DURING 1896 the progress of Sheffield in the direction of the improvement of the city has been greater and more marked than in any previous year. The widening of High Street has been the most notable event, and the last obstructing building—that of the Capital and Labour Clothing Company—will be removed within the course of a few weeks. The south side of High Street will, during the coming year, if the lofty pile of Messrs. Foster and Sons and the buildings above it be any criterion, put on an Architectural dignity which has long been lacking. The buildings in High Street completed during 1896 have been described on various occasions. They include the London and Midland Bank at the corner of York Street, the lofty pile raised by Messrs. Foster and Sons, and the pretty terra-cotta building of the Grand Clothing Hall. The Café Company's premises consist of the original building set back to the prescribed line. The new premises of Messrs. F. E. and S. Smith were the first to appear behind the disappearing bricks and mortar, and now the Victoria Hotel is practically completed. As yet the new roadway is only temporarily laid, and the completion of the connecting link of the new sewer, which extends from the Monolith to the Church Gates, and from Change Abbey to the top of Commercial Street. This sewer replaces the ineffective drain which was in places simply carved out of the rock in its course. In Church Street the space above the Reform Club buildings so long unoccupied is now fully covered by the premises built for Messrs. Wm. Bush and Sons, auctioneers, and Messrs. H. and A. Maxfield, solicitors; and still further up Messrs. Webster and Styring are having an imposing corner block, which while it utilises what has been a miserable-looking stoneyard, will shut out the street view on one side of St. James's Church. The new Court House buildings in Waingate, of severe and imposing dignity, barren altogether of beauty although not opened, were virtually completed during 1896. The

NEW TOWN HALL,

which has been alluded to so many times, is apt to escape notice. The great gates are not to be rolled back until Her Majesty gives the signal. The officials of the Corporation were however, so badly housed that the earliest opportunity was seized of requisitioning the apartments in the city's building. The City Surveyor and his staff were the first to leave the unsuitable offices in Bower Spring and take up their new quarters. That was in February. The Medical Officer of Health, the City Accountant, and the Town Clerk were all fixed in their new home during the summer. The Water Department and the Council will shortly occupy the new hall, which has long been waiting for them. The completion of the new Town Hall has done a great deal to inspire building energy in that immediate neighbourhood. The Prudential Assurance Company's building—in the familiar style adopted by their Architect in nearly every town—as a structure is complete, and requires only interior work and fitting to be ready for occupation. Behind them brick and mortar will soon be rising on the space opposite to the Empire Palace. The shops on the Pinstone Street side complete the Architect's scheme in connection with the Empire. On the opposite side of the road a space which has long been an eyesore is that now filled by the buildings erected by Messrs. Laycock and Gibbs. The buildings already enumerated may fitly come under the general heading of city improvements, inasmuch as they fill up unsightly gaps in main streets, and lend an appearance of thoroughness and completeness which has been long wanting. The new arcade which Messrs. T. B. and W. Cockayne are building at the end of Watson Walk will be finished at an early date. An improved thoroughfare from Campo Lane to Broad Lane is much needed. This is in connection with the difficult problem of how to deal with

THE INSANITARY AREA,

—a question full of perplexity, and one not likely to be settled without enormous outlay. Mr. Wike's scheme provides for the much-needed widening of Townhead Street and Tenter Street, and gives more direct access from Campo Lane to Broad Lane by a good wide thoroughfare, beginning about the centre of the Crofts. Already the Corporation has secured a large number of the scheduled properties, and before the end of 1897 it is anticipated that satisfactory terms will have been arranged with all the property owners. Workmen's dwellings and improved thoroughfares are to be the outcome, but exactly in what form this will be accomplished, remains to be seen. However, the slum quarters are to be swept away. The work of the Corporation has been by no means restricted to the centre of the city. In many other parts of the thirty square miles area the City Surveyor's men have been at work, many of the improvements being of a minor character, but none the less acceptable to those in the vicinity of the alterations. Here and there, in much-frequented streets, houses standing much out of line rudely jostle the foot-passengers on to the roadway. Not one of these has been overlooked in the Bill with which the Corporation go to Parliament next session, in which it seeks powers to finish the widening of Westbar, Shalesmoor, and Infirmary Road, and other more distant roads. In the

CITY SURVEYOR'S DEPARTMENT

the baths at Upperthorpe were completed during the year, the Glossop Road Baths were entirely reconstructed and improved, and now the east end is to have its turn. The long-talked-of baths at Brightside have been planned by the City Surveyor's staff, and tenders will be asked for early in the year. An additional temporary ward has been built at Lodge Moor Hospital. The new "Destructor," which is being built on a site purchased from the Duke of Norfolk, near the canal at Attercliffe, is now nearly completed. The Surveyor's department during the year has practically finished all the work for which a loan of £54,000 was granted. Another loan of £42,000 has been applied for. This is for work spread over all the city. Twenty-nine miles of carriage road and carriage ways have been reconstructed, and about 17 miles of footpaths, flagging, and asphalting, at a cost of £70,000. Sewering to the extent of 4½ miles has been constructed. In this last work the biggest piece is the sewer from Nether Green, right through the newly-purchased Whiteley Woods, to Brookhouse Hill. It will be capable of draining the whole of the valley district, and assist greatly in the development of that quarter as a residential district. The official statistics show that buildings other than dwelling-houses have been erected in 1896 to the number of 287, against 253 in 1895, and that plans have been sanctioned for 533, against 432, in the preceding year. Additions have been made to the works of Messrs. Vickers, Sons, and Company at the Cyclops Works of Charles Cammell and Company, at the foundries of Messrs. Samuel Osborn and Company, and the Brightside Foundry Company. Messrs. Walker and Hall have made extensive additions to their works, Messrs. Mappin and Webb, and Messrs. Atkin Brothers have also been extending. Not much has been done in the way of school building, but the Bole Hill Board Schools were opened during the year, and various other schools belonging to the Board at Newhall and Tinsley Park have been enlarged. The Primitive Methodists have built a Chapel and mission-room at Heeley, and a small Chapel at Fulwood, and the Congregationalists at Cemetery Road have added a school to the Chapel. St. Matthew's Clergy House in Carver Street and a Mission Church at Grimesthorpe complete the tale of ecclesiastical work, though preparation has been made for the Chapel-of-ease, in connection with St. Mark's, at Brocco Bank.

THE Electricity Committee of St. Pancras Vestry has fixed the price for charging accumulators for electric motor vehicles, at either of the vestry's central stations, at 2*d*. per Board of Trade unit.

WE are informed by Mr. Thomas Elsley that his business has now been converted into a limited company. The shares are not offered to the public. We also have to announce that his business has been entirely removed to Great Titchfield Street (Nos. 20, 22, 26, 28, and 30), the premises occupying the site adjoining those in which his fireplace factory has been carried on for some years past.

SEWAGE IMPROVEMENTS AT BRADFORD.

AT the annual meeting of the Birmingham, Tame and Rea District Drainage Board, the Works Committee reported that in accordance with the proposal to apply for Parliamentary powers to acquire additional lands for sewage purposes, a bill had been deposited, and the preliminary formalities complied with. In pursuance of the instructions of the Board, the committee had caused to be included in the bill powers for the purchase, in addition to the 1,100 acres recommended in Mr. Hawksley's report of the 31st July, of the seventy-nine acres recommended by Mr. Till for avoiding severance and improving boundaries, of the freehold of 125 acres now held on short lease by the Board; and for obtaining the property rights and easements necessary for removing the weir and sluices at Forge Mills. These additions to the original proposals would add to the cost of carrying out the scheme, and after consultation with all their professional advisers, the committee decided that the sum of £400,000 should be inserted in the bill as the amount to be borrowed under its provisions. The committee had obtained an offer for the sale to the Board of about 34¾ acres of freehold land and two cottages situate at Wiggin's Hill, for £3,775. The property was part of the area of the extension scheme, and the committee recommended the Board to purchase it for the sum named. The following proposal had been made with reference to the method of dealing with the sewage of Castle Bromwich:—that the Board give up to Lord Newport its freehold land about six and three-quarters acres in extent, situated on the south side of the Midland Railway against the new racecourse, and that Lord Newport give up to the Board in exchange an equal area of freehold land, to be situated to the east of the footpath leading from Castle Bromwich, past Berwood Hall, to Minworth, the Board to lay out the same, and deal thereon with the sewage from Castle Bromwich. It was added that Lord Newport proposed to straighten the River Tame through the land he thus acquired, and further west as far as the point where the river entered on the Board's land at Stonehouse. The committee recommended that this arrangement be adopted, and the exchange of land effected under conditions to be approved by the committee. On the motion of Mr. Hughes, resolutions were passed giving effect to the committee's recommendations.

AT a meeting of the School Buildings Committee of Aberdeen School Board it was reported that building operations at Walker Road School are now sufficiently far advanced to render the opening of the school probable next month. It was resolved to have working drawings prepared for the new school at Kittybrewster, and to have the works specified with a view of their being contracted for at an early date.

A SHOCKING accident occurred at the Eiffel Tower which is in course of construction at New Brighton, near Liverpool, on the 13th inst. Three men in the employment of Mr. Handyside, of Derby, who is the contractor for the iron work of the tower, were working on a scaffold 35 feet from the ground, and were engaged in fixing one of the huge iron girders, when the hook and the crane used for lifting the iron gave way. The iron work, which was swinging from the crane, fell and in its descent struck the scaffold on which the men were working, entirely demolishing the structure. Two of the men were instantaneously killed, the third seriously injured.

A MEETING in furtherance of the proposed road over Sty Head Pass was recently held at Keswick. Mr. R. D. Marshall presided, and among those present were representatives of the Keswick Urban District Council, the Whitehaven Rural District Council, and representatives from Bowness and Windermere. A resolution was passed recognising the great importance to the Lake district of an easy means of communication between Borrowdale and Wasdale, and pledging the meeting to give hearty and active support to any well-considered plan for such a road. The estimated cost of the road is £10,000.

SOCIETY MEETINGS.

Devon and Exeter Architectural Society.—Mr. Edmund Sedding read a paper, on Thursday evening, at the Plymouth School of Art, the subject being "Local Gothic Architecture." He said that, situated as Plymouth was, amid scenery of considerable beauty, it was incumbent on those who designed in that town that they should design well. The Architectural status of a town or city depended on the character of its domestic buildings; if they were mean and of a second-rate order the Architectural character of that town would be so in comparison. Referring to the two great divisions of Architecture, Classic and Gothic, and after giving weighty reasons for the adoption of the latter, which he described as the natural Architecture, Mr. Sedding said the inhabitants of Plymouth had acted wisely in erecting their principal public buildings in the Gothic style, which was so adaptable to the climate and so much more suitable for constructional methods. With regard to the decoration of Architecture, which he described as the most important part of this fine Art, he remarked that it should be of Gothic character, in proper proportion to the distance at which it was placed from the eye—not as the Greeks placed it, on the top of their buildings, but as the Goths placed it, at the entrances to their buildings. There was very little stimulant in Plymouth for the Architectural student in the way of museums or old buildings. It was necessary to be in touch with old work in order to design well, and that could be done if only the trouble was taken. He advised that the Society should spend their afternoons in visiting old buildings, when the weather permitted.

Edinburgh Architectural Society.—A meeting of the Edinburgh Architectural Society was held on Thursday last—Mr. G. S. Aitken in the chair—when Mr. Alexander Drew, C.E., delivered the first of a series of lectures on "The practical designing of iron and steel roofing." We are pleased to state that we have arranged for the exclusive right to publish this series of lectures, which will commence early in the new volume.

Sheffield Society of Architects and Surveyors.—The monthly meeting of this Society was held on the 12th inst., at the School of Art, Arundel Street, Mr. C. Hadfield, F.R.I.B.A., the President, in the chair. A lecture was delivered by Mr. Beresford Pite, F.R.I.B.A., President of the Architectural Association, on "The Study of Architectural Design," illustrated by numerous drawings, photographs, and blackboard sketches. He stated that the modern Architect suffered from lack of Artistic motive. He sought it in Archæology and mere picturesque quaintness, there being now no traditional style or intuitive sense of beauty in Architecture. No doubt this was as characteristic of our age as if it were quite otherwise, but it was impossible that the Architectural student should be left without direction or serious intention in his study of design. Present purposes could perhaps best be served by seeking to excite enthusiasm from interest in detail work, and by understanding and analysing the beautiful qualities in the means employed in plans and working drawings, which were the instruments by which a beautiful building was obtained, and thus made up for the loss of genuine national Architectural style. An Architect's plans had a beauty of their own, and this was pointed out in some detail from many examples. This beauty was undiscernible in the building, and belonged to the embodiment in the drawings of the building. In the same way the sectional plans of buildings were examined, and the means illustrated from them of obtaining different Architectural effects by a carefully studied interest in the sections. Elevations were grouped in different classes dominated by general ideas, such as verticality or horizontality, concentration or distribution of ornament, a picturesque grouping of sky line, or dignified severity. These points were illustrated from photographs and sketches, as well as grandeur of line, simplicity of rhythm, luxuriousness, a simple line with a rich surface, or a rich line. The students were exhorted to thoughtfulness in detail as pre-eminently the road to good Architecture. In conclusion, Architecture was vindicated as a decorative Art, and as such the foundation of all Art other than imitative.

[We are pleased to state that we have arranged for the exclusive right to publish this lecture, which will appear in an early issue of the Architectural Review.]

Belfast Mechanical and Engineering Association.—The members of the above Association held their fifth annual meeting on the 16th inst. The report stated as follows:—"That the past year has been one of continued progress. During the year eighteen new members had been enrolled. During the summer, visits were paid to The Ulster Spinning Company and Messrs. Gunning and Campbell's; ss. Langton Grange; main drainage pumping stations; British Aluminium Company's Works at Larne Harbour; Corporation Gasworks. Two valuable papers were read during the present session—namely, that on 'The Construction of the New Albert Bridge,' by the Hon. President, Mr. J. C. Bretland, and 'Engineering Materials,' by Mr. James M'Clelland."

Society of Antiquaries of Scotland.—The monthly meeting of this Society was held in their library at the Museum, Queen Street, on the 11th inst., Mr. J. Balfour Paul, Lyon King of Arms, Vice-President, in the chair. In the first paper, Mr. Robert Brydale described a group of seven carved grave slabs in the churchyard at Dalmally which was anciently called Clachan Disert, and is stated in Dean Macgregor's Chronicle to have been the burying-place of the chiefs of Macgregor from 1390 to 1528. In the second paper, Mr. Thomas Wallace, F.S.A. Scot., gave some notes of antiquities in the districts of Loch Alsh and Kintail, first describing Castle Grugach, a round dry-built tower or broch, like those of Glenelg, which stands at the foot of a precipitous rock called Onag, on the south shore of the extreme east end of Loch Alsh. It was cleared out in 1889, but all that was found in it was a fragment of a quern. In structure it resembles others of its class, but the stones are large and well fitted together, and there is a huge triangular stone forming the upper lintel of the doorway. There is a vitrified fort of small size between the Glennan Burn and Loch Long, to the north of Bundalloch. The island on which Castle Donan stands at Dornie has been fortified by a vitrified wall on the land side. In the third paper, Mr. F. R. Coles gave a notice of the standing stones of Torhonskie, Wigtonshire, which seem to be the megaliths of a great cairn, although the accumulation of stones about them is really known to be recent, and the group of standing stones appears analogous to those at Glenquicken, Park of Tongland, and hills in the Stewartry; and in the fourth paper, Mr. R. Crawfurd Walker gave a notice of an interesting heraldic monument at Kilmany, Fifeshire, which is probably unique in Scotland.

The Institution of Civil Engineers.—An ordinary meeting was held on Tuesday, the 12th inst. Mr. John Wolfe-Barry, C.B., was in the chair, and the paper read was on "Superheated Steam Engine Trials," by Professor W. Ripper, M. Inst. C.E. The author showed that the heat expended in superheating reduced the amount of heat employed in evaporation of water, and that no important gain could be theoretically expected from superheating. When steam was superheated it was in a more stable condition than without superheat, and if the steam contained sufficient excess heat, the steam in the cylinder could be rendered dry at cut-off and at release, and thus the principal source of loss of heat in the cylinder, namely, water at release, was removed. The author considered superheating not as a means of obtaining a thermal efficiency in any way proportional to the temperatures used, but as a device for realizing as far as possible the full thermal efficiency of saturated steam, by rendering the cylinder practically non-conducting. Experience has shown that, with ordinary care as to purity of feed-water, superheater tubes after long periods of severe work showed no signs of burning, scaling, or injury of any kind. With the greatly improved quality of lubricating oils no trouble need arise with the lubrication of superheated steam engines. The point requiring chief consideration in the design of engines to work with superheated steam was the steam-admission arrangements. The steam-admission valve, being subjected to the maximum temperature, should be practically frictionless, so as to remove the necessity for its lubrication.

Correspondence.

EXETER CHURCH COMPETITION.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—In an anonymous letter signed "Competitors" in your issue of the 13th inst., certain points call for comment. I take one of the sentences and alter the fourth word: "Everyone knows how elevations* can be, and are, made attractive to the eye, and every Architect knows how misleading they can be made"!

I observe that it is rare for an Architect to design in perspective, much less to model, and that a careful perspective is usually far more like the building than four elevations. This, to my mind, is shewn in the drawings illustrated, one side being very superior to the other—a point avoided by placing the Church as in my plan. The winning design is, presumably, the *only* one which will be seen in *actual* perspective. Hence, in the end, the fitness of things will be apparent. However, if "Competitors" care to send their elevations, I shall have pleasure in doing the same.

I am, yours faithfully,
PHILIP APPLEBY ROBSON.

* "Perspectives" in original.

ST. DAVID'S CHURCH. EXETER COMPETITION.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—Happily this is a case of "All's well that ends well," and it may be interesting to know that after the very strong opposition from quarters where it should have been least expected, the award of the assessor, Mr. James Brooks, has been acted upon, and a tender of £11,960 accepted for the work according to Mr. W. Caroe's plans, to which he gave the premier position; and it has now been decided that the second premium of £50 be paid to Mr. Harbottle Reed, of Exeter, the author of the design placed second by Mr. Brooks.

Yours faithfully,
"FAIRPLAY."

19th January, 1897.

ALTHOUGH to the passer-by the extension of the Public Record Office, which is to be seen in Chancery Lane, looks well-nigh complete, the whole work is not expected by the authorities to be finished until early next year. No formal opening of this extension is contemplated, as the new buildings will be purely for official purposes, except the part intended as a museum for the exhibition of Domesday Book and other historical manuscripts preserved at this institution.

Announcements.

Editorial.

THE EDITOR will be glad to read any suitable matter submitted to him, and will return all MSS. when stamps are sent to pay postage.

All matter must reach the Editor by the first post on Monday morning to ensure its treatment in the current issue.

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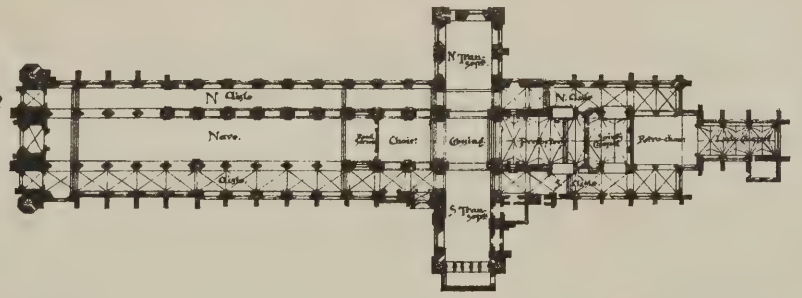
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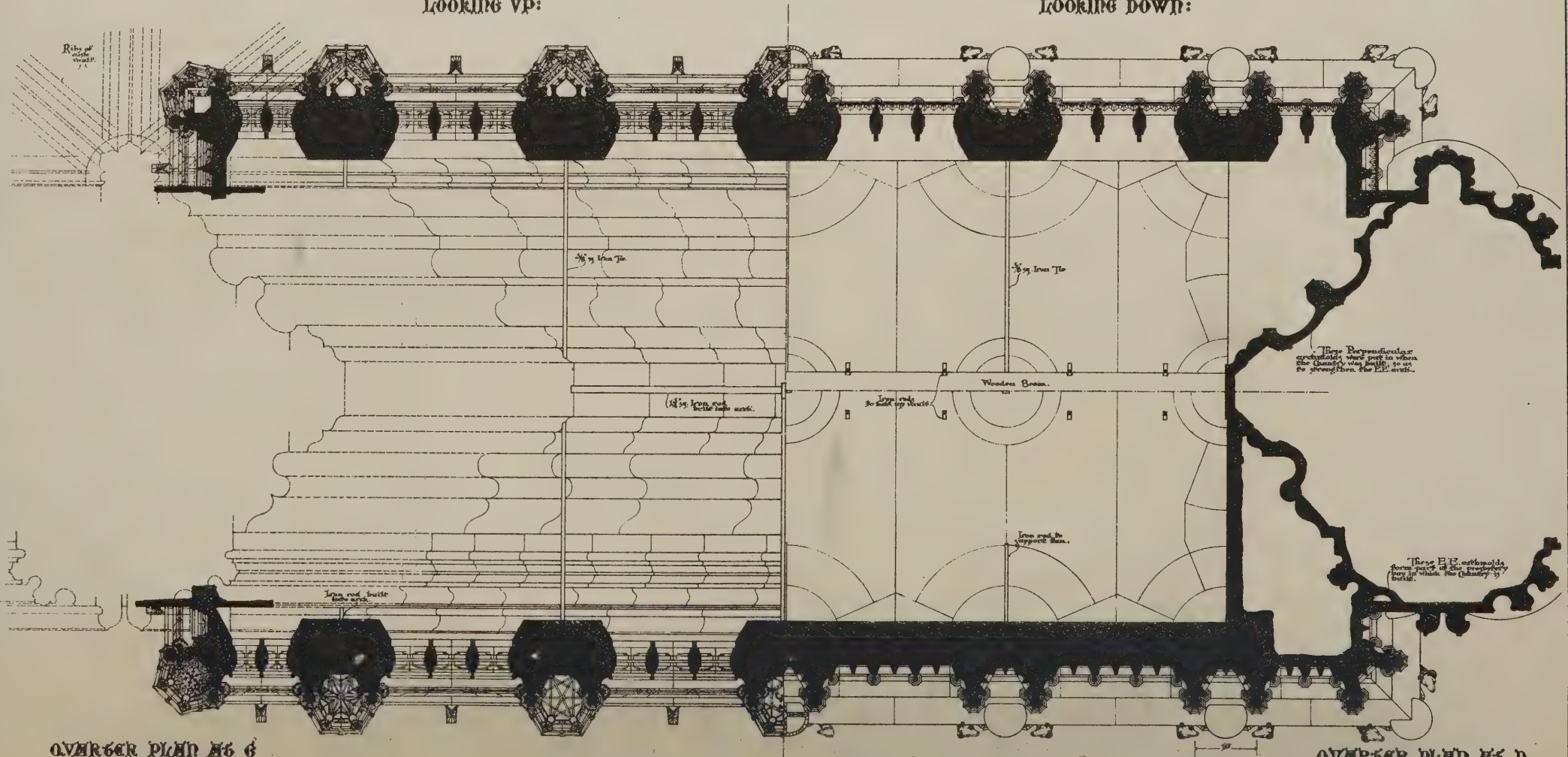
SKETCH PLAN OF ST ALBAN'S CATHEDRAL:



Note.
This plan shows the position of the Rosary & Chantry on the N. side of the Presbytery. It occupies the Easternmost bay of the arcade and was erected circa 1500 – 1525.
It is constructed entirely of Chalk stone.

QUARTER PLAN AS F LOOKING UP:

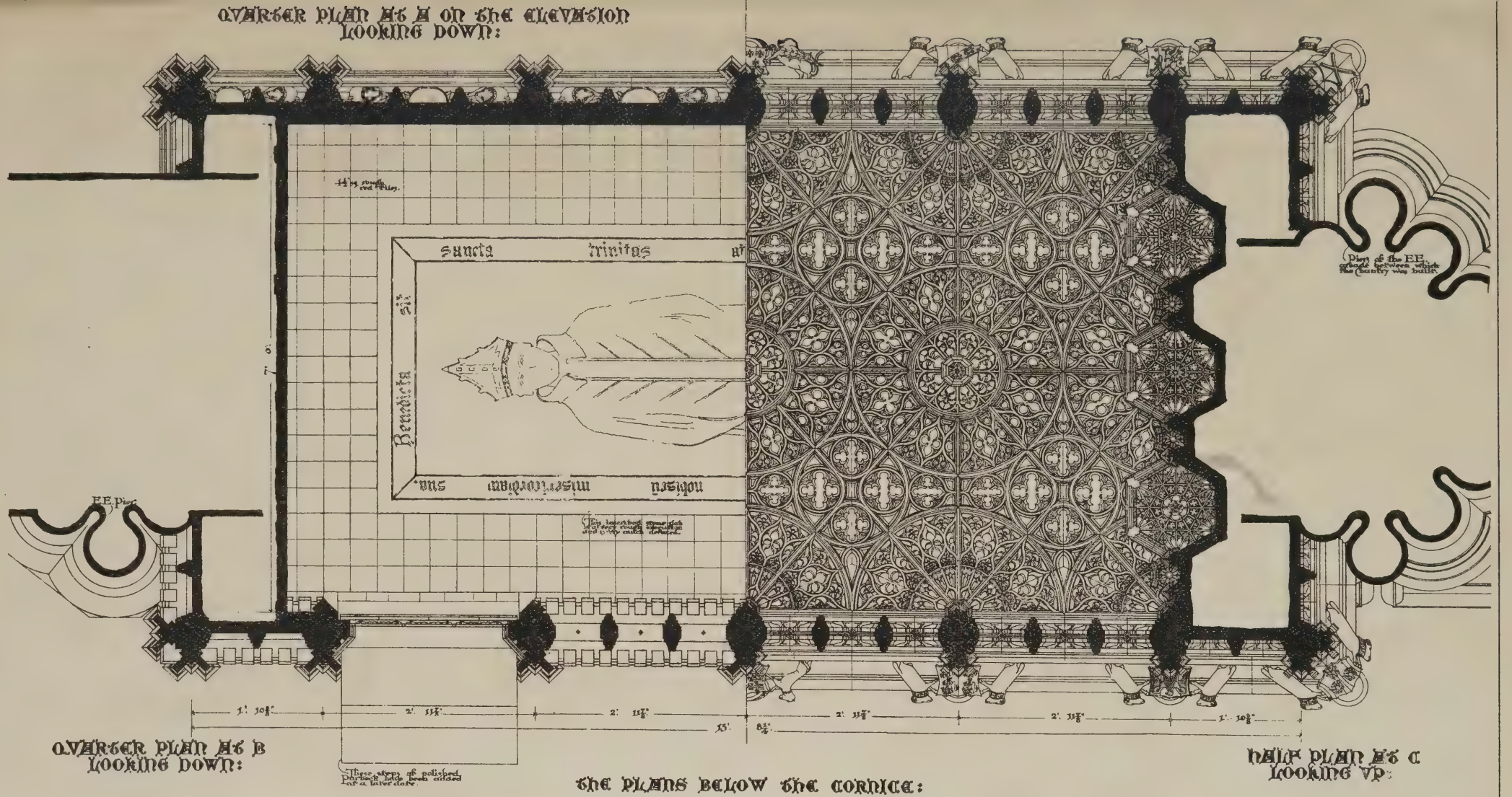
QUARTER PLAN AS E LOOKING DOWN:



QUARTER PLAN AS G LOOKING UP:

QUARTER PLAN AS D LOOKING DOWN:

THE PLANS ABOVE THE CORNICE:



THE CHANTRY OF ABBOT RAMRYGE:
St ALBAN'S CATHEDRAL:

Measured and drawn
May to Aug. 1895.
Done in ink in London.
Dec. 1895.
C. de Grichy

SCALE OF FEET:

Harrison & Sons, Lith. St Martins Lane, W.C

THE CHANTRY OF ABBOT RAMRYGE, ST. ALBANS CATHEDRAL. MEASURED AND DRAWN BY C. DE GRUCHY.

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The Builders' Journal

AND

ARCHITECTURAL RECORD.

Vol. IV., No 104. **Wed., February 3, 1897.**

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Ourselves.—An Announcement. WITH this present issue is completed the fourth volume of THE BUILDERS' JOURNAL AND ARCHITECTURAL RECORD, and we have arranged, in opening the new volume, to take a certain decisive step which we have long had under consideration. Our Journal has become a fine grown child, now entering upon his third year, and parental solicitude and ingenuity have of late been exercised to meet his swelling proportions. From time to time since his birth his tucks have been let out, till their limits are now fully exhausted, and it has been decided on the advice of his nurse, the Editor, to give him a new rig-out, which shall better befit his size and dignity, and shall enable him to acquit himself in a wider sphere, and rival with equal pretensions the big fifth form boys. The scheme of THE BUILDERS' JOURNAL, as our readers may know, was devised on the conviction that it would be possible to produce for a penny a weekly paper, the pages of which, though necessarily less voluminous than those of the more expensive papers, should yet take a position equally beside them. Although many periodicals and magazines in this day able to burst forth with a blast, and achieve their highest success with their first issues, this can never be the case with a paper whose original vital principles are economic principles. In such circumstances time alone can bring assurance of success, and the continued and growing popularity of this Journal, and the acknowledged position it has achieved among the professional publications of the day, has at this, the opening of our fifth volume, found us with a decision to yet further enlarge its pages and its scope, and to extend its interest in directions whence the circumstances of our one-penny limit has hitherto held us from venturing. The first necessity in a paper for Builders and Architects is a complete epitome and summary of professional news, and, in particular, of *intimate* professional news. This we have always made the backbone of our Journal, and we have been able to give week by week, since our foundation, a more complete record of building contracts, tenders and matters relating thereto, than we believe, is to be found at all elsewhere, without limit of cost. In our enlargement, therefore, we feel there is little more to be done in that direction, though the increased size of the paper will enable us to give items of building news with more extension of detail than has yet been possible. It is to the second, and, in a certain sense, subsidiary interest of the Journal that we propose to give our particular attention. Besides the popular "Men Who Build" series, the accounts of notable Artists and their work, we have continually published original and refined articles by writers and Architects of distinction, and editorials on matters foremost in Architectural interest. It is to this department of our paper, then, that we have decided to yet further add to and develop, and it is to this Architectural and Artistic interest in particular that the increased dimensions and the widened scope of the forthcoming volumes of the Journal will be especially dedicated. We intend also to pay some further attention than hitherto to Art workers and decorative Sculptors and Painters, and to secure a continued series of interesting original signed articles. It has many times been suggested to us, by Architects of experience, that the title of our Journal, in its direct emphatic assertion as being primarily a "Builder's Journal," tends somewhat to check its circulation in those directions where an Architectural interest is looked for, and that also, in view of the attention given to Architectural matters in the paper, the term is misleading, and tends to detract from the identification of the Journal with the Architectural profession. This, however, is entirely wrong; the greater part of our circulation—probably so large a proportion as 70 per cent.—is among Architects and Surveyors. In order, however, to further strengthen the practical side of our columns, we have decided from time to time to give Sanitary and Surveying Supplements, and other features of great interest professionally, which we feel sure will be appreciated. In instituting THE BUILDERS' JOURNAL we attempted more than had ever been done before, and in making these additions we are but continuing



HERALDRY IN ARCHITECTURE: ARMS OF ERSKINE, EARL OF MAR. FROM MAR'S WORK, STIRLING.

our consistent policy of development and enterprise. A recognised position has been fought for and obtained, and it is not by any means our intention of resting upon our laurels.

MR. ALBERT GILBERT, R.A., AT THE INSTITUTE.

SCULPTORS' ARCHITECTURE OF THE RENAISSANCE.

IN reading a paper on "Sculptors' Architecture of the Renaissance" before the members of the Royal Institute of British Architects, on Monday night, Mr. Albert Gilbert, R.A., said he felt it presumption on his part to attempt an address which suggests so much, and upon which, alas! he was so incompetent to descant. They must forgive him, however, if his remarks conveyed merely suggestions for their own enquiry. Could those great men, whose names would presently be mentioned, hear all that might be said at that meeting, they would be filled with wonder and amusement at the pains they had inspired in us, to reduce to theory the origin of their aims, and though possibly grateful to us for our appreciation of their realization, there might be yet some concern at the thought that their most cherished gifts to us had been made out, explained, and proclaimed to the world. In the days when these great men lived, Art was young in her re-birth. Man, though as old as his age, was yet unborn, as knowing or professing more than his personal knowledge. It was an age of assertion, of endeavour, yet not tentative, but as decided as the handwriting on the wall, and every bit as misty. And, therefore, it held us, it enchanted us, it allured us to inquiry. They were met that evening to discuss the work of Sculptors of a past age. Surely it was because they recognised in certain work which delighted us, the distinct work of a class of individuals who, though cunning with their tools, were yet not too friendly with the tee-square and the set-square of modern days, and it was doubtless the apparent innocence on their part of that which we had grown to regard as indispensable which astonished them. That the results of their inspirations and labours under such conditions should prove so splendid as to create in us a desire to study their methods was refreshing, not to say restful, in these days of hurry. He was one of those who was anxious to plead

THE CAUSE OF HIS REVERED PREDECESSORS

in such a manner that their exampless might be followed by his living brothers and those to come after them. Sculptor-Architects! Architect-Sculptors! Where was the difference? And yet what a difference there was! Add the magic words "Renaissance," and the query was almost immediately answered. The Sculptor-Architect of that period still survived, but the Architect-Sculptor — well, his existence was not really matter for our enquiry. He probably did exist, despite the fact that his efforts form less of a phenomenon than those of his brother craftsman. And the question arose: How came this so-formed Sculptor-Architect into existence? At this period, despite a desire to create a National Architecture, there seemed to have been little attempt on the part of Architects to realize anything beyond a free revival, or imitation, or adaptation of classic models. Examples were not lacking. The Sculptors, imbued with the same spirit, had fewer examples. Indeed the best they had were the Greek or Roman productions. Sources of inspiration were open to them, however, in the study of nature in all her suggestiveness. At this time, the Architects were hard at work as students of antiquity, striving to resuscitate, whilst Sculptors were yearning, burning, in fact, to create, and to give to future generations a true impress of their own lives and time. Was it to be wondered at, under such conditions, that the Sculptor of the period should long for license and liberty, and a greater field for his invention, and that he should venture on the accompaniment of his own Architecture. And thus, greatly enlightened, he was led by his ambition to attempt the creation of the very forms he had been called upon to decorate — in short, to govern instead of being governed. This, to his mind, constituted the real origin of the most remarkable phase of the history of the Renaissance, and since its inception, spreading as it did throughout Europe, and inspiring such works as were to be found in all the great centres of Architecture, its good influence had been so manifest that he ventured to think that, if greater attention could be paid to the study of this subject, if it could be brought into the ordinary training of both the Architect and the Sculptor, much good would accrue, and there would be some hope of the Architect and Sculptor placing themselves in the position of those whom we admire and were inclined to imitate. It was not to be wondered at that, in an age of sumptuousness and magnificence, such as was that of the Renaissance, that

THE STRIVING TO EXCEL

should have become a passion, the ambition to build palaces to adorn, should have taken the place of the former contentment to ornament palaces already built, in fact, that the Sculptor should seek so much to combine his own Art with that of the Architect that he placed himself above the standard of decoration to the Master Adaptor. Formerly, the Architect had been more confined to his own profession, to the spirit and traditions of the Art of his predecessors, strengthened by that intense craving to create for himself. Thus far he had endeavoured to trace the possible existence of the phenomenal Sculptor-Architect in order that they might more readily follow him in his remarks as to his work. He was by no means prepared to claim for it a striking pre-eminence as directed simply on the erection of edifices. It was rather in the treatment of ornaments that combine with purely Architectural forms, that he would feel inclined to favour the Sculptor in his dual capacity. He had been used to design and execute ornaments of buildings in which he had had no hand and with which doubtless he oftentimes entertained no sympathy. He could realize that his ornament meant to his employer so much decoration, while to him it was an expression of an idea. This knowledge thus fitted the Sculptor for the task he was about to undertake, and which from the best examples he had proved himself to have mastered. Another qualification was his, and one which they must not overlook, for it was very marked in the productions of the Renaissance and the period immediately following. It was a training they usually received in the Art of the goldsmith. To this, no doubt, must be attributed the extreme freedom, and accuracy and delicacy of execution, to say nothing of the sense of colour and light and shade, and due appreciation of proportions which characterised their work. He was quite aware that, strictly speaking, the subject of his paper would appear to promise a critical review of the Sculptor-Architect's work, but it seemed to him fit that this should rather be invited through discussion than given as pronouncements from himself. He also felt that

REFERENCE TO SPECIAL WORK,

or particular Architects, was more likely to serve the object for which those gatherings were held if it were made in the discussion. But he wished to add a few words, emphasizing a remark he had made earlier in the paper, and that was with regard to the desirability of the study by young Architects and Sculptors alike of the particular phase of the Art of the Renaissance which was under consideration. Such a study could not fail to impress them with the grandest lesson to be learnt—that it was a duty every Architect owes to himself, to his Art, and to his generation, that he should endeavour to place himself beyond the charge that he was merely an imitator of masters and styles of a past age, but rather he should go to the root of the flowers and learn to create on the stem, flowers as beautiful as the originals. It was the spirit of the age, not the letter of the age, with which he should commune. He should worship it, and by bending himself to the application of its great influences, endeavour to pass on to posterity a rich legacy, further enriched by the print of his own time and individual adornment. Art was a very old republican. To-day it had been given the grand secret—the elixir of life—that secret which had for ever been denied to man. Art was as young to-day as it was centuries ago. Its existence was a curious thing, at once retrospective and progressive. Its every movement forward was a reflection sent back from the Mirror of the Past. Its life was a constant reflection backwards and forwards in the Mirror of Ages. Its every act was a mere reflection. Its future was written in the magic word "tradition," a word which with its mighty significance would ever remain to assist Art in its onward movement. It was in the spirit of the past that we might grasp the inspiration with which, with our own individuality, we can hope to hand on the important legacy we had inherited from men who were far more than mere specialists.—Discussion followed. It was opened by Mr. Alma Tadema, who, in proposing a vote of thanks to Mr. Gilbert, said, he had been a most attentive listener to what he considered a most interesting paper, full of suggestions which had made him dream of

THE BEAUTIES OF THE RENAISSANCE,

and of the revival of the antique, without giving anything positive to disturb their general admiration of the beautiful things in the light of which they were daily feasting, and from which they were daily provided in their Art. To be brought to admire a thing worth admiring was always a reason for gratitude. He would like to see more of the Renaissance in the modern productions of buildings. He would also like to see the various branches of Art in greater union—the Architect a little more beholden to the Sculptor, and the Sculptor and Painter a little more beholden to the Architect. He had pleasure in proposing the vote of thanks. It was seconded by Mr. J. M. Bryden, who, in a rather lengthy speech, entered into a critical review of the work of the Renaissance, specially that of Michael Angelo and Sansovino. Michael Angelo had looked upon Architecture from the Sculptor's point of view, and they would find in examining his work that latterly the decorative side had obtained over the constructive side. He hoped, with Mr. Tadema, that a greater union between the Sculptor and the Architect would again exist.—Mr. Beresford Pite said the Architect and Sculptor were in need of each others' ideas. The two suffered distinctly and apart from different complaints, and a conjunction of the two might produce a healthy state of design. The Architect was fettered by a large number of facts, by lines, by orders, by plans and so on, and, on the other hand, the Sculptor suffered from the lack of these restrictions. His mission was to create an object out of nothing, to create a statue out of an abstract idea, and if they could have a little of the Sculptor's blood infused into Architects, they might produce "a mongrel Sculptor-Architecture of a distinctly strong breed." The debate was continued by Mr. H. H. Statham, Lieut.-Col Lennox Prendergast, Mr. H. J. Florence, Mr. Owen Fleming, Mr. G. A. T. Middleton, and the Chairman. The latter thought it would probably be much better if the Sculptor and the Architect combined in cases where their joint Artistic efforts could be brought to bear on any monumental work. Mr. Gilbert replied to the discussion at some length. Referring to the difference in the training of a Sculptor to that of an Architect, he pointed out that whereas the latter was guided by rules and so on, the Sculptor had no law-books. Answering a question by Mr. Fleming, Mr. Gilbert disclaimed any intention of seeking to convey the idea that building should be necessarily work of one hand. What he wished to infer was, that it would not be unbeneficial, if those who were learning their respective Arts also paid attention to the study of other Arts, so that in building they might know when to seek assistance from a brother Artist engaged in another branch of Art.

MR. BRUCE JOY'S bust of the late Archbishop Benson has been temporarily placed in the saloon of the Mansion House.

THE new baths which the vestry of Hackney have erected at Clapton Square, will be opened on Saturday, February 13th, by Lord Russell.

THE loftiest tunnel of Europe is the Colle del Marcello Tunnel on the line of railway from Naples to Sulmona, which was recently opened. This tunnel on the mountain side is, at its highest point, where it debouches, 4,593 ft., but the journey is nevertheless performed without gear. A most interesting feature of this tunnel is a natural gas spring, which supplies a permanent light.

THE BUILDERS' AND ARCHITECTURAL JOURNAL RECORD

Heraldry in Architecture.*

BY RAMSAY TRAQUAIR.

I DO not think that I can begin this paper better than by a quotation from a well-known writer on Art matters, a quotation which is a striking example of the interest of heraldic decoration in Architecture, not only to antiquaries and Architects, but to all who take an interest in Art.

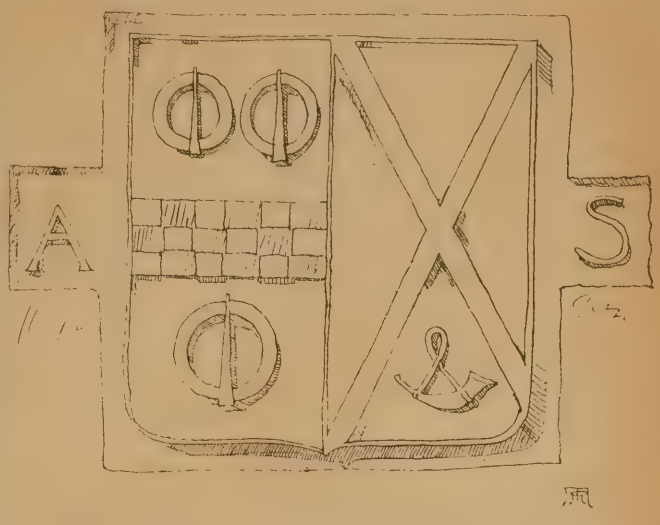
"In a Florentine street, through which I pass most days, is a house standing a little back, the sight of which lends to that sordid street of stained palace backs, stables, and dingy little shops, a certain charm and significance in virtue solely of three roses carved on a shield over a door. The house is a humble one of the sixteenth century, and its three roses have just sufficient resemblance to roses, with their pincushion heads and straight little leaves, for us to know them as such. Yet that rude piece of heraldic carving is sufficient, as I say, to give a certain pleasurableness to the otherwise unpleasurable street."

The technical execution has here nothing to do with the pleasurableness of the decoration, it may be well carved, it may be badly carved, its interest lies solely in its being heraldic, and this testimony to the interest of heraldic decoration as such is doubly valuable as coming from a writer unbiassed by any antiquarian tendency.

This special value of heraldry lies, I think, in a certain individuality thus given to a building, or, indeed, to any article decorated with coats-of-arms. It sets a house apart as the possession, the home, of a certain family, and invests it with all the historic interest and dignity of that family.

In public buildings it often fulfils an additional function in directing attention to persons connected with the building at the time of its erection, or in giving a clue to the identity of statues or figures, carved or painted. Thus in mediæval frescoes we often see little shields placed above or beside the principal figures, and blazoned with their arms, to identify them, a method surely much more beautiful than that of writing their names underneath.

These considerations should make us very careful in the use of heraldry in Architecture, every coat used should serve some purpose, should not merely show that the Architect fancied a row of rampant lions along the front of his building; we should also be careful not to use false or incorrect heraldry, decorating our buildings with coats which never existed, or which perhaps belong to some person having no earthly connection with the building on which it is placed.



PAISLEY ABBEY. ARMS FROM NORTH TRANSEPT. STEWART IMPALING MAXWELL.

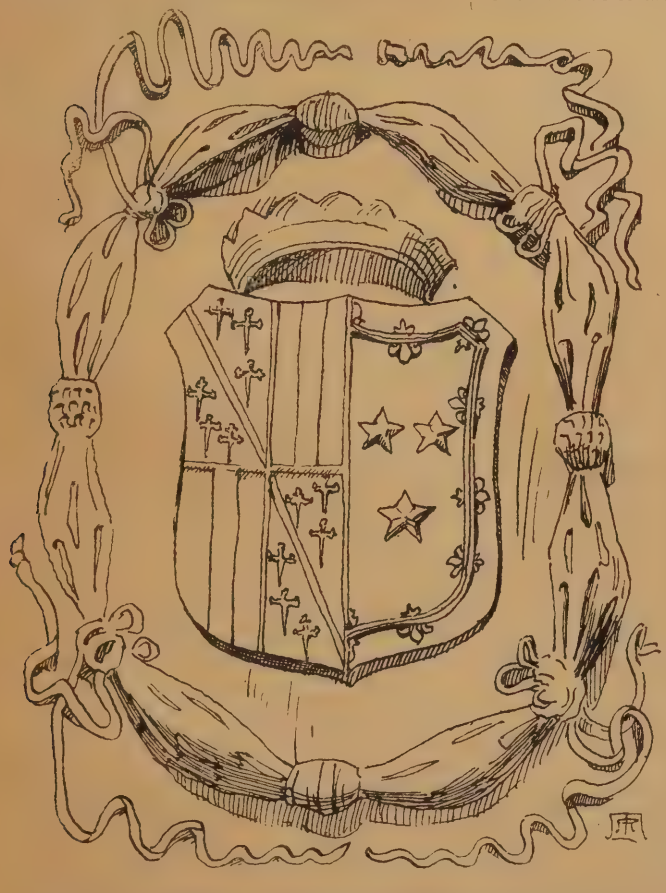
Before using heraldry in decoration, a slight knowledge of the principles by which the descent of arms and the combination of different coats are ruled is very necessary, and this knowledge is also useful in considering the arms we may find on old buildings.

A coat-of-arms is essentially a personal possession, it descends from the father to his eldest son; younger sons even do not bear their father's arms, but must get some slight alteration made in the paternal arms, which, when thus "differenced," become a possession in their branch of the family, and descend thus differenced to their eldest sons.

Slightly different rules apply to daughters; these, however, will appear when we consider the case of combinations by marriage.

When a man marries, he combines his own and his wife's arms within one shield. This is done, in ordinary cases, by dividing the shield down the middle, placing the husband's arms on the right or dexter side of the shield, and the wife's on the left or sinister. The wife here uses her father's arms without difference, the addition of her husband's being sufficient distinction. On her death, her arms disappear altogether from the shield, and her sons bear only their paternal arms. I have illustrated several examples of this practice, technically called "impaling," from various buildings in Scotland. When, however, the wife is an heiress, that is to say, when she has no brothers to whom the paternal arms may be handed down intact, the modern custom is to place her arms on a small shield in the centre of her husband's, "in pretence," as it is called. Her son then combines his father's and mother's coats by "quartering." The shield is divided into four parts, the paternal arms are placed in two diagonally opposite quarters, and the maternal in the remaining two. This combined coat then becomes the hereditary bearing of the family, and is treated in exactly the same way as a simple coat.

The ancient practice, in the case of an heiress, seems to have been for the husband to quarter his wife's arms at once, instead of placing them in pretence; but, wherever you find an old quartered coat, it is a sign that the head of the family at some time married an heiress.



MAR'S WORK, STIRLING. MAR IMPALING MURRAY OF TULLIBARDINE.

The Earl of Mar's coat from Mar's Work, Stirling, is an example of this. From it we see that the last "Earl de Mar" had a daughter but no sons. His eldest daughter married an Erskine and thus made him Earl of Mar. He now hands down the arms of the extinct family "de Mar," combined with his own paternal arms of Erskine.

A very common way of using the impaled arms in a scheme of decoration, was to place the husband's arms alone on one side of the doorway, and his wife's, that is, the impaled arms, on the other. Thus, at Mar's Work, we have Erskine, Earl of Mar, on the right, and Mar, impaling Murray of Tullibardine, on the left of the entrance, the Countess of Mar being a daughter of that house.

This last coat also shows a quartered coat impaling a simple one.

We are now ready to consider this coat from Paisley Abbey; but, before looking into it, I may say that in the case of a family marrying more than one heiress, the whole coat is not quartered each time, but the heiress' arms are placed in a separate division. Thus the second heiress would place her arms in the 3rd quarter, the third would go into the 4th quarter, and any after that would go into similar divisions, also called quarters, no matter how numerous they may be.

Now, as this Paisley coat consists of eight divisions, you might suppose that the family of the happy owner had married no less than seven heiresses in former time. A truly appalling record!

On examination, however, you will find that the coats are not all different, and that they are arranged on a certain principle. The first corresponds to the 6th, the second to the 5th, the third to the 8th, and the fourth to the 7th.

The whole is in fact a coat formed by impaling two quartered coats—Hamilton, Earl of Arran and Lord Seaton.

The principle of impaling arms was also used in other connections: thus, a bishop impales the arms of his see with his own, placing his on the sinister side as "maritus ecclesiae."

I would now like to say a few words regarding the various accessions to a coat-of-arms: the crest, helmet, mantling, and supporters.

The crest was a badge, often taken from some bearing on the coat-of-arms, placed on the warrior's helmet to distinguish him in battle. It was fastened to the helmet by a twisted band of two colours in the case of a commoner; in the case of a peer it rose from the coronet.

The crest did not descend as regularly as the shield, and is hence not so useful in identifying buildings. Indeed, I am sure you must all have noticed the extraordinary frequency of such crests as an arm holding a dagger. This crest must, I am sure, be borne by hundreds of people, whereas a coat-of-arms can only be borne by one man, and by no other during his lifetime.

The helmet is usually placed above the shield and supports the crest. It is of various shapes, and is often an exceedingly important part of the design.

From underneath the coronet or wreath issues the mantling. Various conjectures have been made as to the origin of this extremely picturesque

* A paper read before the Edinburgh Architectural Society



PAISLEY ABBEY. ARMS IN ASOUNDING ISLE.

adjunct. It has been supposed it was the cloth in which the shield and helmet were wrapped when not in use. In support of this, it is pointed out that the mantling is often supplied with cords terminating in tassels, which may have been used to tie up the whole. It may also have been a lady's favour, worn attached to the helmet, and which would thus naturally get slashed and cut in battle into picturesque forms. I, myself, am convinced that it was simply a puggaree, and that its use was to protect the knight from the heat of the sun, which, striking on his polished armour, must have been very trying.

In the earliest periods the mantling was exceedingly simple: the example here given from the Percy Shrine, Beverley, shows it in its simplest form, here appearing as a mere edge on each side of the head. In the later periods it was very luxuriant and took leaflike forms, though often preserving the now meaningless tassels of its earlier existence.

As examples of mantling, I cannot do better than refer you to Duren's drawings. Here we have mantling at its fullest development and taking a most prominent part in the design.

Supporters are borne only by peers, and, I believe, by Highland chiefs. They may be either animals or men, and stand one on each side of the shield, holding it up. Occasionally only one is used. They may have originated in the grotesque disguises assumed by the squires in tourneys.

I have till now purposely refrained from saying anything about the Artistic treatment of heraldry, and have confined myself to indicating the materials which the heraldic decorator has to hand. The Artistic use of these materials is far too large a subject for the tale end of a paper, and would require almost a series of papers to itself, but I have here two shields which I can not refrain from showing you as examples of how it can be done.

The first is from Paisley Abbey. Here the Artist had a lion rampant surmounting a fesse checquy. He has accordingly lengthened out the body to almost a line, and disposed the feet above and below, so as not to interfere with the fesse.

The second is the coat from Beverley Minster, to which I have already referred, and which is, I think, the finest example of heraldic decoration I have ever come across. It is an example of spirited treatment and Artistic feeling which yet never strays from the straight path of heraldic virtue.

As you see, it shows the King of France and England fully armed, bearing his shield across his breast. In one hand he holds a spear, in the other his sword, of which the scabbard shows under the shield. The vizor of his helmet is raised, and the mantling is indicated on each side, falling from the coronet.

The shield itself is a splendid specimen of heraldic Art, the bearings are, as you see, quarterly — France and England. France at this time bore a shield "semée of fleur-de-lys," that is spotted with an indefinite number of fleur-de-lys. Accordingly the sculptor has placed five good big fleurs in the first quarter, but only three in the fourth and smaller quarter. England wore then, as now, three lions "passant guardant." Here he had to deal with an invariable number, he accordingly adapted their size. The second quarter shows three equal-sized lions, the legs of the lowest straying curiously in amongst the fleur-de-lys in the fourth quarter, but in the third, where the breadth decreases as it approaches the base of the shield, the lions decrease also, till the last lion is quite microscopic, and seems to have curled up in his corner.

The whole of the bearings are raised fully three quarters of an inch above the field, which latter is completely covered by a large square diaper.

The whole forms, I think, as beautiful a piece of decoration as we can hope to find, and exhibits all the qualities which we should aim at in designing heraldic decoration.

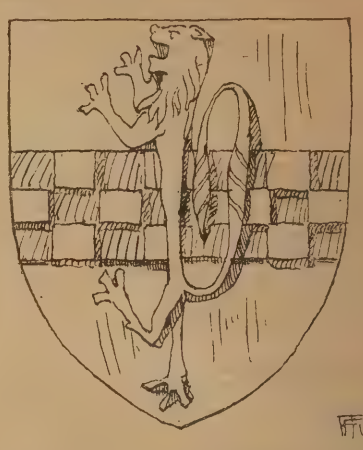
PRINCE and Princess Christian will open the new General Hospital at Birmingham, in June next, on behalf of the Queen. The precise date of the ceremony has not yet been fixed. The building is estimated to cost £200,000.

SIR E. J. POYNTER will shortly be presented with the honorary freedom of the Salters' Company, and entertained at a banquet at the Company's hall. The Painters' Company will also, in April, make the President an honorary freeman of the Company.

ARRANGEMENTS have been made for rebuilding Bolsover Parish Church at once, and the Duke of Portland has given £1,000 as a first instalment. In the meantime, however, it is intended to procure a large iron building to accommodate about 600 people.

AT Smethwick, the most suitable way of celebrating Her Majesty's long reign has been decided to be the building of a technical school. At a recent meeting it was stated that a properly equipped school would cost £7,500 or £8,000, of which between £2,000 and £3,000 would have to be obtained from voluntary contributions. With a good technical school they would have no fear of German or other continental competition.

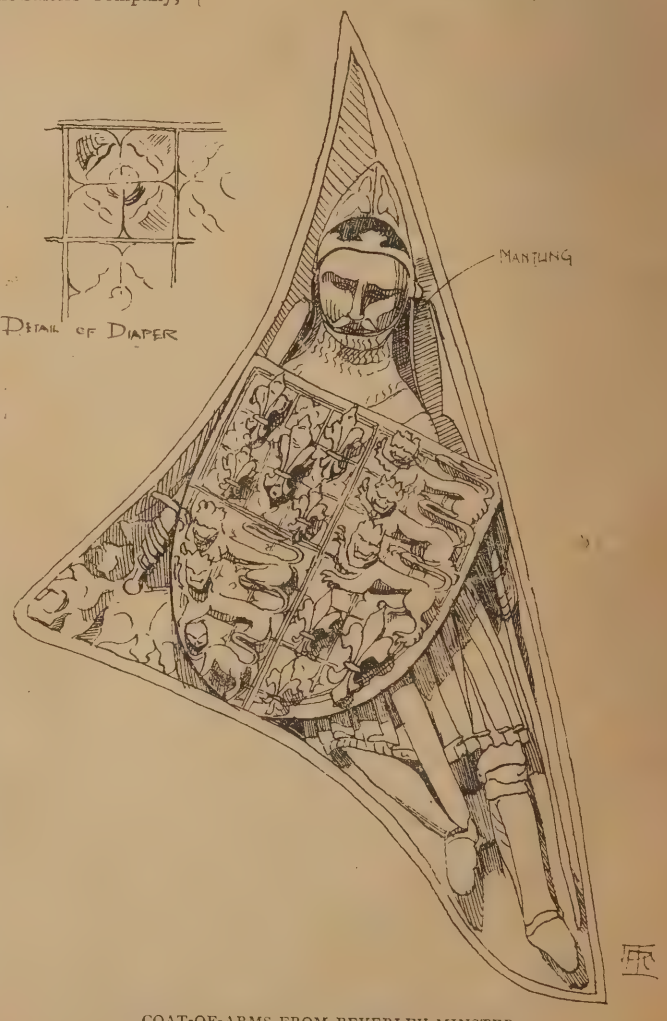
THE deepest bore-hole in the world is one of 6,571 feet below the surface of the soil, made at Paruschowitz, near Rybrick, Upper Silesia. The previous record for depth was the 5,733 feet hole drilled some years ago at Schladebach, near Leipzig. The later bore was made in search for coal measures, and 83 separate seams, some of considerable thickness, were penetrated. Though steel was used at a depth of 6,560 feet, the total weight of the tools reached 30,155 lb.



PAISLEY ABBEY. COAT-OF-ARMS FROM TOMB IN SOUNDING AISLE.

LISKEARD CHURCH TOWER COMPETITION.

LISKEARD Church Tower Committee, on the 25th of last month, received a report from Mr. E. Sedding, of Plymouth, as to the two best designs for the proposed new tower of the Parish Church, illustrations of which we gave in our issue of December 23rd. Twenty-five designs, under *nom de plume* or motto, were examined by him, and the plans of Mr. J. Sansom, of Liskeard, and Mr. H. P. Burke Downing, Great College Street, Westminster, S.W., have been respectively awarded the first and second premiums of 50 guineas and 25 guineas. The whole of the designs were exhibited in the Public Hall last week.



COAT-OF-ARMS FROM BEVERLEY MINSTER.

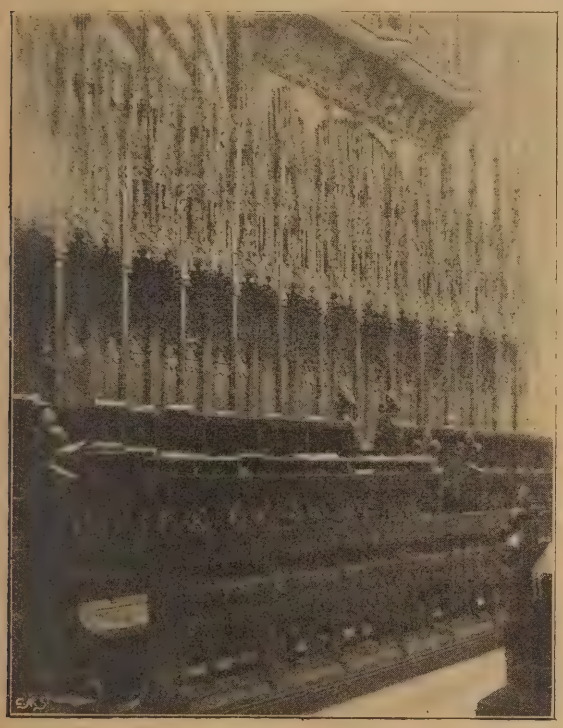
DURHAM AND ITS CATHEDRAL.*

(With Special Illustrations.)

By A. LINDSAY MILLER.

(Continued from page 377.)

ST. CUTHBERT, for some cause or other, had a great dislike to the ladies, and ordered that none should be admitted to his Church at Lindisfarne, which system was continued at Durham; but the story goes that one of the bridesmaids of Queen Maud of Scotland (1130) putting on a monk's dress entered the Church in defiance of the Saint; upon this St. Cuthbert spoke out from his tomb to the sacrist and commanded him to lose no time in driving out the wench, which was done. Other attempts at different times were made by ladies to enter, but the Saint was too much for them. We have noticed that Bishop Pudsey, being more of a polite man, started the erection of a Chapel for them at the east end, but the Saint could not rest with the prospect of the hated ones coming so near him and shook the new Chapel about the ears of the builders, so the Bishop had to satisfy himself with erecting one at the west end, (now known as the Galillee), for their benefit. They seem, however, to have been allowed to occupy a small portion of the west end of the nave as a line of marble between the second piers marked the limit of their approach. Be that as it may, the Galillee was erected ostensibly as a ladies' Chapel, and it is a beautiful specimen of the twelfth-century work. In fact we can hardly imagine how the Architect, under the influence of the massive work in the Cathedral, could erect a structure so elegant, so delicate in its proportions; so light indeed is it that it hardly looks strong enough to carry itself.



THE STALLS.

In form it is oblong, divided into five aisles, each with four arches. The centre aisle is higher than the rest. The arches, decorated with a deeply cut ziz-zag ornament, are supported on two slender shafts of marble; later, two additional columns were added, making a cluster of four columns. The earlier columns are in one stone, whilst the later ones are in courses.

The Galillee was entered by the north door, which has been restored (it is however an exact copy of the original). The present windows belong to the fifteenth century, and take doubtless the place of the original Norman windows; and the Tudor terminations of the walls on the three fronts indicate the lack of feeling for the older work in which restorations were made. In fact, if it were not for the beauty of its interior and the interest we have in it as the work of the period, its removal would be a considerable gain to the west elevation of the Cathedral. In the arched recess, on the north side of the altar, are the remains of some of the original fresco paintings, and considered of the same period as the building, and they are the only specimens of fresco decoration left in the Cathedral. It is probable that the whole interior of the Galillee was originally richly decorated, as is indicated by small portions yet left. In Cardinal Langley's time, 1406-1437, the Galillee was in a ruinous condition; he re-roofed it, put in three windows in the middle of the west wall, blocked up the door to the Church, making two new ones, one on each side of it, and added the two extra columns to the coupled pillars.

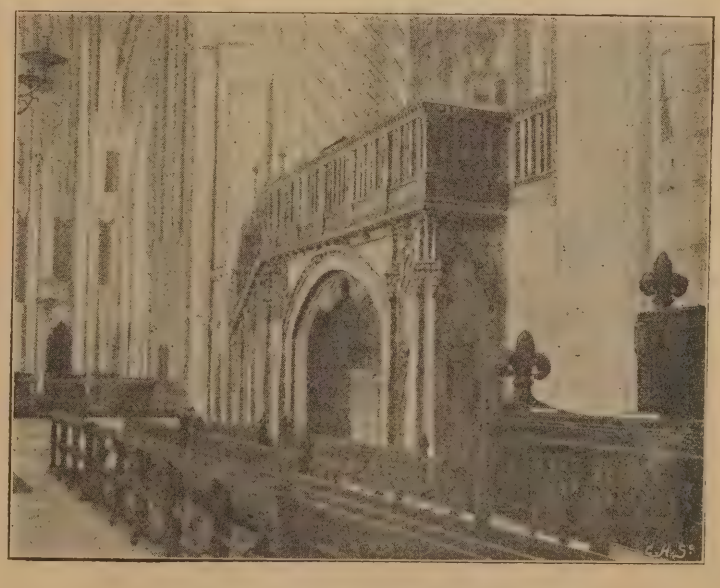
In 1796, the Galillee narrowly escaped destruction, when, under the advice of Mr. Wyatt, it was doomed and the lead actually stripped off the roof, and it was only saved through the intervention of Mr. John Carter, a draughtsman who engraved the series of English Cathedrals issued by the Society of Antiquaries in 1801. He, at a meeting of the Society, drew attention to the matter, and so much indignation was expressed that the Dean became alarmed and stopped it. At the same time it was intended that the Bishop's throne and altar screen be taken down, mixed together and fitted up as a new screen against the eastern wall of the Chapel of Nine Altars, the floor of which was to be raised to the level of the choir.

Before leaving the interior, we might note a few of the alterations made in the original structure from time to time. The following may be mentioned:—the original great windows at the ends of nave and transepts of Norman construction were removed at a very early period, and larger ones with tracery peculiar to their dates inserted for the purpose of gaining light. This was the case with all the windows in the aisles of the choir, and when the Norman windows were not enlarged, mullions and tracery were inserted. The windows of the south aisle of the choir were inserted by Prior Forcer, 1341–1374, and those in the south aisle of the nave by Prior Messington, 1416–1446. The windows of the Chapel of Nine Altars were all single lights till Messington's time, when they were filled with tracery and stained glass.

Passing through the south-east door in the nave, which is an interesting example of Norman work and in good preservation (being under cover), we pay a visit to the cloisters. They occupy a considerable space, but present nothing extraordinary from an Architectural point of view. On the east, west, and south sides of it were the buildings connected with the domestic and political life and the household economy of the monastery. In the refectory and dormitory they ate and slept, studied in the library, and washed themselves in the lavatory in the centre. In the west alley the novices had their school, taught by their master—one of the oldest monks that was learned. There probably was a cloister at an early period in the history of the Cathedral, very likely a temporary cover of wood. The present cloister owes much to Bishop Skirlaw, 1388–1405, and Cardinal Langley continued the work. Such considerable alterations have, however, been made on it from time to time that, except the oak ceiling, little has been left. Looking at the south transept from the cloisters we see the start of the great central tower and the junction of the parlour and chapter house. The original chapter house was taken down by Wyatt (at the same time that the Galillee was threatened), and in spite of Carter's efforts to save, and it was rebuilt as a memorial to the late Bishop Lightfoot. The fourteenth century windows in the apse have not been reproduced, but the following description of its original condition would indicate a careful effort at restoration:—"The ribs of the vaulting were decorated with zig-zag mouldings. The wall arcade of semi-circular intersecting arches ran round the building except at the west end. Beneath the arcade was a stone seat raised on two steps, on which the monks sat in chapter. The floor was covered with monumental slabs of the bishops buried beneath it, and by separate doors access could be had to the south transept or to the cloisters.

Leaving the interior, the finest view of the Cathedral is obtained from the river; the grouping towers, the outline of the castle adjoining it, the deep wooded bank of the river, all combine to make a picture of great beauty, and indeed in the matter of situation, I don't remember a finer one.

We have no record of the central tower, of how much of it was built by Bishop Carilef. The first record we have is of its destruction by lightning, in 1429. The tower as it stands at present, was erected, judging from the style (perpendicular), in the fifteenth century. When Wyatt was at the restoration, one of his ideas was to finish it with a spire; I fear such an addition would have spoiled the dignity of the tower as at present. The lower parts of the western towers belong to the twelfth century, and they were completed about 1220. The Gothic pinnacles and parapets with Italian mouldings were added by Wyatt, and we are led to believe that at one time they were surmounted by spires covered with lead; these were removed about 1657. Near the western towers is the sanctuary door. This door was much altered by Wyatt. Over the door there originally existed two chambers, occupied by the men who admitted suppliants to the sanctuary;



THE BISHOP'S THRONE.

* A paper read at the meeting of Glasgow Philosophical Society, Architectural Section, on January 18th.

these rooms have been removed, the gable and pinnacles put up, and so much has it been altered that Greenwell considers it is difficult to speak with absolute certainty as to the exact time of its original construction. The innermost moulding appears to remain in its original state, and much resembles the corresponding one in the arch of the outer doorway of the castle; this would give the date about 1140. The pillars with their enriched capitals are very much weathered and wasted. Billings notes that the sandstone of the whole building is of a very bad quality, having so much iron in its composition that it literary rusts away. In many parts of the south side of the nave decay is so deep that jackdaws build their nests in the holes. The building so prominent in south elevation is the kitchen, erected in 1368–1370 by Prior Forcer, and is an octagon 36 feet 8½ inches in diameter. Crossing the palace yard, we have on our left the old library buildings with the new portion adjoining them, and on our right we see the octagon keep of the castle in the distance. The upper part and the external casing are the work of Bishop Barrington, 1791–1826; the doorway, however, is twelfth-century work, by Bishop Pudsey, who built the north side of the castle, and also, as we have noted, the Galillee of the Cathedral. Originally the site of a Saxon castle, which would consist of earthwork with ditches and palisades, the interior being of wood, the Normans erected on this site a shell keep of stone. These keeps, as in this case, were of stone, either circular or polygonal in shape, to suit the site, erected on a natural or artificial mound of earth.



THE GALILEE CHAPEL.

This castle was erected by William the Conquerer, in 1072, and, as noticed beforehand, so as to protect the Cathedral on its open side, the river being sufficient on the other side.

The castle was originally the residence of the Prince Bishop of Durham, but it is now held on trust for the benefit of the University, and, since 1837, the castle has been the residence of the members of the College.



ARCADING IN CHAPEL OF NINE ALTARS.

A HANDSOME brass eagle lectern has just been presented to Whippingham Church. The lectern was made by Messrs. Jones and Willis, of 43, Great Russell Street, London, and Birmingham.

ISLINGTON has achieved a distinct financial success with its installation of the electric light. The accounts for the year show indeed a profit of no less a sum than £1,503, and a balance of £818 is declared after the interest payable on the capital outlay has been taken into consideration.

WE learn that Lincoln Cathedral organ, admittedly the worst Cathedral organ in the country, is about to be rebuilt and enlarged, at a cost of £4,000.

THE Improvement Committee of the Gloucester City Council last week considered the plans of the new theatre, to cost about £15,000, which a London Syndicate proposes to erect opposite the municipal schools in Brunswick Road. The plans were passed, subject to the city surveyor's approval of the sanitary arrangements.

THE ADVANCEMENT OF ARCHITECTURE, WITH SOME REMARKS ON THE STUDY OF GOTHIC.

THE FIRST OF THE ROYAL ACADEMY LECTURES, BY PROFESSOR AITCHISON, ON MONDAY, JANUARY 25TH.

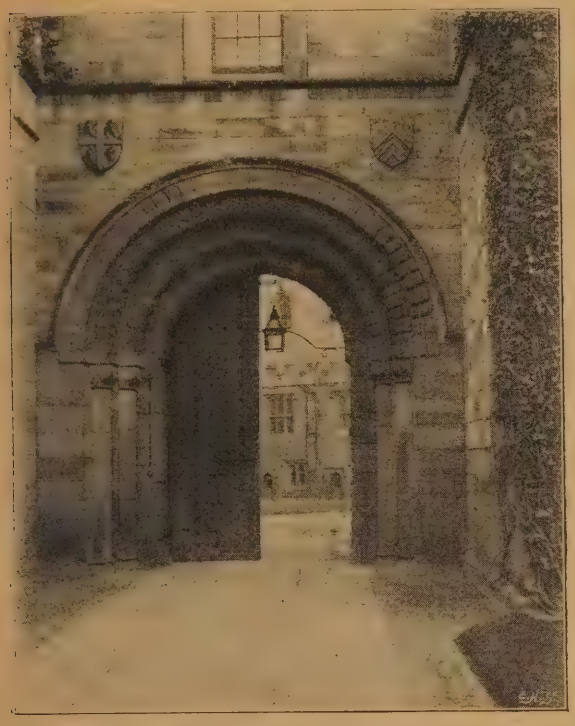
IT is now 129 years ago since the Royal Academy of Arts was founded by His Majesty, George III. It was founded at the request of Sir W. Chambers, his Architect, and in the charter granted by His Majesty, and dated the 10th December, 1768, it was provided that there shall be "A Professor of Architecture who shall read annually six public lectures, calculated to form the taste of the students, to instruct them in the laws and principles of composition, to point out to them the beauties or faults of celebrated productions, to fit them for an unprejudiced study of books, and for a critical examination of structures." At that time the tide of the Italian Renaissance was still flowing, although there were slight signs of reflux in the growing admiration for Gothic. Horace Walpole altered Strawberry Hill in the Gothic taste in 1750, while, in the very year of the Royal Academy's foundation, Milizia published his Lives of the Architects, in which the works of Palladio were held up as the standard of taste. The Dilettanti Society, in 1762, published the first volume of Stewart's Antquities of Athens, and subsequently the Antiquities of Attica and Ionia, and is, I believe, still publishing works on Greek Architecture. At any rate the researches of Pullan on the Temples of Apollo Sinintheus, of Bacchus at Teos, and Minerva Polias at Priene, or one at least was published in the year 1881. Wilkins published his Antiquities of Magna



NORTH FRONT OF GALILEE CHAPEL.

Græcia in 1807; Inwood, The Erectheum at Athens in 1827; Penrose, The Parthenon, in 1847, 1851, 1888. Sir C. Fellows published his works on Lycia, Caria, and Lydia, in 1839–1847; J. Pennethorne, The Geometry and Optics of Ancient Architecture, in 1878; Sir C. Newton and Pullan on the Discoveries at Halicarnassus, Cnidus, and Branchidæ in 1862–1863; Cockerell and Donaldson, their supplements to Stewart's Athens in 1830; and Cockerell his Temple of Jupiter Panbellenius and Apollo Epicurus in 1860; and in the same year Falkener published his Classical Museum, not to speak of foreign publications; I need hardly speak of Hittorff's Restoration of the Temple of Empedocles at Selenius, 1851, nor of Abel Blouet's scientific expedition to the Morea and to Macedonia, 1831–1838. There is no task more difficult than that of unravelling

the causes of certain movements among mankind, and this is even more difficult when it is a purely intellectual movement. We speak of the Renaissance as if it were a change of taste that could be as precisely dated as a revolution or a battle, while it had been led up to for centuries, and we can only be certain of its existence and preponderance long after it had begun. In this case of the Greek movement, one prime factor in it was



DURHAM CASTLE, ENTRANCE.

the enthusiasm of Winckelmann, who began to write on Greek sculpture when he was at Dresden, and afterwards published his History of Ancient Art about the middle of the last century, and he found sympathishers who had come to much the same conclusions before he wrote. From attention being called to the perfection of Greek Architecture in 1762, and subsequently, a wave of Greek taste swept over most of the countries of Europe. The Elgin marbles were purchased by the British Government, and placed in the British Museum in 1816; even children who saw them were struck by the beauty of the Panathenaic frieze, and doubtless this revelation of beauty to the public prolonged the call for imitation Greek Architecture. The admiration, however, of

GOTHIC INCREASED IN ENGLAND,

partly owing to Sir Walter Scott's novels, and partly to the efforts of such men as John Bratton, Rickman, the second Pagin, the Ecclesiological Society, and others. This admiration became so prevalent as to strongly influence public opinion, so that in 1840 it was determined that the Gothic style should be adopted in the new Houses of Parliament. Even before this, the very champions of classic Architecture were so affected by the increasing admiration for Gothic, that the great Wilkins himself dabbled in it, and Sir James Pennethorne and Professor Donaldson tried their hands at it. Decimus Burton, once a well-known classic Architect, who persisted in his creed, was so far forgotten that, when he died a few years ago, his name and works were almost unknown. A passion for the study of Gothic spread largely in society; antiquaries, clergymen, undergraduates, heads of houses, and other amateurs, as well as Architects, employed their spare time and holidays in making notes on Gothic buildings in England and abroad, measured and drew out the mouldings of different dates, and a few of the more learned endeavoured to solve the mysteries of Gothic construction. In 1841, Professor Willis read an admirable paper at the Royal Institute of British Architects, called "The construction of the vaults of the Middle Ages," really a treatise on Gothic stone cutting, greatly admired abroad, and still studied by Architects in this country, while the Gothic flame was still burning, fanned by Mr. Ruskin. In 1854-68, was published by that Cuvier of Gothic Architecture, Viollet le Duc, his Dictionary of Architecture, now of world-wide celebrity; which may be said to have completed the Gothic conquest. Casts of figures and foliage from the Gothic Cathedrals and Churches were collected at the Architectural museum, and masons were encouraged to copy them; while during the professorships of Scott and Street at the Royal Academy, Gothic was pronounced to be the only true Architecture in the world, and that eccentric genius, W. Burges, was never tired of advocating its universal adoption. Casts of Gothic figures and foliage were collected at the South Kensington Museum, and even at the Royal Academy. There was a long struggle between those who were getting their living by paraphrasing Classic and Renaissance buildings, and by those paraphrasing Gothic buildings; hard words were bandied about, and "Pagan" and "Papist" were affixed by their opponents to the rival practitioners. A truce was at length concluded, and a practitioner was allowed to paraphrase Classic or Gothic, or both, without having an offensive epithet bestowed on him. Students were allowed to compete for prizes at the Royal Academy, and at the R.I.B.A., in either style, much to the disgust of those brought up in the belief that Renaissance was the

ONLY ADMISSIBLE STYLE.

Owing to the large increase of travelling, the publication of Architectural works, and the multiplication of photographs, the desire for novelty, and the absence of any proper teaching, all phases of Architecture from Greek days downwards, if we except the Egyptian Hall and Angelo's School of Arms, were in turn adopted. This produced two results: the first was this, that the public looked on Architects as persons keeping an Architectural costumier's shop, at which colourable imitations of every past style could be procured; the public still believes that Gothic has a stronger ecclesiastical flavour than any other style, and that Renaissance is more adapted for municipal buildings; so it has a Gothic Architect for its Churches, and a Renaissance one for its other buildings. The wealthy occasionally desire the rooms of their mansions to form an Architectural pattern book, each room being of a different style, or phase of a style, a Gothic Chapel, a Græco-Roman hall, an Elizabethan dining room, a Louis XIV drawing room, a Louis XV boudoir, an early French Renaissance morning room, a Roman library, and a Moorish smoking room, with perhaps a Chinese, Indian, and Japanese room thrown in. The other result was, that thinking men interested in Architecture began to ask themselves what Architecture was, beyond designing habitations or shelters for men and animals, factories for making goods, warehouses for storing them, and shops for selling them; why the buildings of certain countries, and at certain epochs had always been admired; why the shapes and details of buildings at successive epochs were so different from one another, and why at so brilliant a period as this of the nineteenth century, when men's minds are so active, and so restless, nothing but paraphrases of bygone styles were to be met with, even in important buildings. They soon saw that some of the differences in past styles were brought about by the greater number of men's wants, and by the greater complexity of society; that some were owing to an increased knowledge of materials, and of their powers, and to advancement in the Art of building. A good many thought that when every part of a building exactly answered its purpose, and when every redundance had been pared away, and each part took its shape according to the work it had to do, an Architecture would arise of itself without further trouble, more wonderful, more perfect, and one that caused more exalted emotions than any that the world had seen; but it became apparent that this was a wrong hypothesis. The wonderful iron structures of our engineers have surpassed all that was done before in the world in a scientific direction, without regard to anything but cheapness and utility, but nearly all their works are unsightly, and

MANY OF THEM ARE HIDEOUS.

It is just possible that if this hypothesis could have been perfectly carried out, it might have given the true solution; for we believe Nature makes her organisms in the best way, and with the least possible material, while most of her works are beautiful; but we have not got her materials, her knowledge, nor her skill, and we are not sure either that she does not aim at beauty; still, I think that most of our minor problems point to a solution in this direction; but the major problem seems to me to wholly depend on man, for it is not the purely necessary problems that are alone to be solved, but the proper emotions that should be excited by the sight of the building. Solemnity, adoration, and thankfulness should be evoked by a temple; majesty by a building for legislation; awe and apprehension by law courts; dignity by buildings for public offices, great officers of state and magistrates; magnificence in the mansions of merchant princes and great manufacturers; grace and delightfulness in theatres, concert, and fine Art exhibition rooms; comfort and comeliness in the houses for ordinary citizens; while the grimness of a prison should excite repulsion and terror; but, beyond these master emotions, we want each part to exhibit the æsthetic



QUADRANGLE OF DURHAM CASTLE.

cultivation of the day, and show not only the mastery of the Architect, but the knowledge, the care, and the

SKILL OF THE WORKMEN.

The lessons of how these various emotions are to be raised must be learnt from those buildings of former times, which show how cognate emotions were excited. The rest depends on the genius of the Architect and the cultivation and aspirations of the best of the public. A perfect Architectural monument has much more human interest given it by Sculpture, and by figure painting, than by pure Architecture, while fine monumental colouring is another source of delight. Sculpture and figure painting have for their highest models the most physically perfect human beings; if the figures created by these Artists will not harmonize with the Architecture, the Architect must look to it, for his Art is then below that of his brother Artists, and the completed monument is patchwork. The serenity of high ideal sculpture or painting will not harmonize with coarse Romanesque nor with tormented Gothic; so you see that it does not depend on the will of the Architect to adopt any past style he chooses, but the style is evolved from the necessities of the case. The rude figures of the Solomon Islanders would be as much out of place in the pediment of the Parthenon as the Panathenaic frieze would be in a Norman Cathedral. I do not address you as persons anxious to get your living, and naturally the best one possible, by the exercise of a respectable calling, but as

POETS IN STRUCTURE,

who not only hope but desire that the monuments you erect will call forth admiration and delight in the cultivated, hundreds or thousands of years hence, and who spare no study and no pains to ensure this result. What Milton says of fame is true, it is "that last infirmity of noble mind." If you feel the divine power within you, that will enable you to delight millions yet unborn, you feel that fame is but an unimportant accident. You must, however, not only "scorn delights and live laborious days," but you must study as the poets have studied, and see how your predecessors learned to evoke the emotions that now delight you. As I have addressed you as poets in structure, it will not be amiss to see how the poets in words, inspired with the divine afflatus, have learned the elements of their Art. Take Dante, or Milton, or Tennyson, and see how they studied all the best poetry of the past and of the present, how they mixed among mankind and studied the emotions of those around them, how they translated or paraphrased the poems of other times, and of other tongues, to get their hand in and to learn their Art. Some of you may object that such transcendent poets as Shakespeare and Burns had but little learning, you may be sure that both of them deplored it, and endeavoured to make up for their deficiences by learning all they could from ancient story, from ancient poetry, and from contemporary work, and by constant and piercing observation of the persons and things around them, and by repeated efforts to make their works immortal. In our own Art we see Brunelleschi, who was to become the great Architect of his day, working as a journeyman goldsmith at Rome, so that he might measure and study the Roman ruins, and obtain from them constructive and æsthetic knowledge. In our own day, we have seen Alfred Stevens getting his living by designing grates, tiles, and fire-irons, while he was learning to be a great Sculptor, a Painter, and something of an Architect. Remember that above all things

ARCHITECTURE IS A CONSTRUCTIVE ART,

and that all that you can do is to build; by that you must show your knowledge, your skill, and your aspirations, your manners and your morals, and as an Architect, by that alone. You can, of course, avoid the study of statics by getting examples of what has been done before, and keeping well within the old lines, but this is not what the Roman, the Byzantine, or the Gothic Architects did; their aim was to outstrip their predecessors. It is not the method our engineers have adopted whose works are the wonder of the world; they learnt as much as was necessary for their purpose of that part of science that underlies their practical work, and taking iron as their material, have immeasurably surpassed all that was done before them in construction. They never would have done this if they had merely feebly copied the engineering works of the Romans. In Art, however, there is a very different story to tell. The Arts may be said to appeal to the emotions through the eye and the ear, and the accumulated knowledge of them does not help us beyond a very limited distance. When accurate modelling has been attained, there is little more to be learnt, except how to create ideals that are, in certain respects, more perfect than the average human being; in drawing, when form can be exactly copied, and when that knowledge of perspective, called fore-shortening, is attained, there is but the composition of line and grouping to be added: the rest depends on the imagination of the Artist, whether it be to create allegorical figures, or scenes from the past.

IN COLOUR

there is the harmonising and contrasting of the different tints and tones to be attained, and the choice of those most appropriate to the subject of the picture, and the imitation of such subtlety of mixed colouring as is found in the nude human form. We have no reason to believe that after the Greeks had cultivated gymnastics the human form has improved. Landscape painting may have improved, as the forms and laws of inanimate nature are better known and observed, but we have no reason to believe that the beauty of inanimate nature has increased. Ordinary emotions have become more complex, but this can hardly be the case with the grand ones, such as ecstatic joy, heartrending grief, terror, and despair. Is eloquence, wit, humour, or pathos more common or more forcible than in the best ages of Greece? I think almost the emotions being now more complex than of yore have become more difficult to pourtray, so that if the modern Artists pourtray them with an effect equal to that attained by the great classic artists they must be greater men. It would be amusing if it were not so melancholy to see with what a light heart the Architectural students treat the master Art they follow, every one of whose three or four branches is transcendental, each one of which may take the whole life of a man to master, and which requires genius as well, to enable any one to surpass the ancient masterpieces—I mean planning, construction, proper emotional excellence and healthfulness—yet, after three years passed in an Architect's office, each student feels himself competent to practise if his friends can get him work. Sir John Soane's retort to a young Architect is apposite; the young Architect said, "I ought to understand Architecture, for I was articled to it for seven years;" "The time it takes to make a cheesemonger" was the reply. When I see the long hours and the long years devoted by Artists to drawing or modelling a human figure and to the study of anatomy, and know that even then he has but the elements of his Art and may want the divine gifts that are required to make an Artist, I am almost in despair at the prospects of Architecture; still there is hope for the future in the fact of Architectural students having their eyes opened to their own ignorance, which, through the teaching at the Architectural Association, they are trying to dispel. I was pleased to see a young Architect working out models of masonry at the Schools of the Associated Guilds in Titchfield Street. I am doing my best to dispel from the students' minds the notion that the paraphrasing of dead styles is Architecture, that it is more than the means of learning how to express themselves Architecturally. Sketching in perspective is no doubt a

CHARMING ACCOMPLISHMENT,

and the young men of the present day have progressed wonderfully in this Art, and though it is not without its value as a means of cultivation, still it can never teach them Architecture. When I look at the sketch book of Willars de Honecourt, the French Architect of the thirteenth century, I see that he could sketch but poorly, at whose efforts an accomplished draughtsman of the present day would laugh, but Willars could design a Cathedral, and see it properly carried out, and he could do this so well that he was sent for to Hungary to build one there. The Art of sketching is like making a coloured sketch of the painted decoration on the soffit of a vault, useful enough as a memorandum of the excellent effect produced, but affording no information as to how the effect is obtained; to get that information the student wants a scaffold to see the actual colours used and the methods of using them to produce the desired effect, one or two hundred feet from the eye. Although Greek Architecture is

THE MOST PERFECT

the world has yet seen, in which everything is studied with endless labour, and treated with supreme ability, so that a whole building and each part answers as perfectly to the intention of the Architect as the strings of a fiddle respond to the hand of the musician, it is absolutely without effect in this dull and misty climate, at least for the greater part of the year, and our brightest sunshine never produces the results obtained in its native country. In Greece the sunshine plays endless symphonies on it from daylight to dark. It is doubtful if we can ever again have such complete simplicity, owing to the number of modern wants, and the complexity of modern society; still, let us study it deeply, and take to heart the lessons it so strongly enforces, of aiming at simplicity if we hope to attain the sublime. Every Architect feels that he could design the Parthenon if it had not been done before, though in this respect he is absolutely mistaken, for to obtain elegant simplicity is the most difficult as well as the highest achievement of Art. To make Architecture simple and expressive and lovely, when loveliness is wanted, is the aim of most Architects, and should be

THE AIM OF ALL,

but for the Architect to find out how to attain this in his particular work, is the greatest difficulty, involving as it does the greatest efforts, as well as supreme genius. In comparing Greek with modern Architecture, it may be said—

"We shift, and bedeck and bedrape us,
Thou art noble, and nude and antique."

Some pessimists say we can do nothing but paraphrase, until the present civilization of the world is submerged by a flood of savages; yet, surely this is not a necessary consequence. We see that the Romans, when almost effete, when cruelty and corruption seemed hardly able to go further, managed to develop a style that equalled, if it did not surpass, the best work done in the Gold and Silver Ages of the Empire. This fact alone ought to banish despair. Let us all combine our efforts to set Architecture on its feet again, and if we can do this, I think we may be sure that the new phase of Architecture that results, will be a credit to our age and to our country. We should recollect that we are still, in the main, a courageous, honest, industrious, and enterprising people, and I hope we are also beginning to be a tasteful people, and may hereafter make the boast of Pericles, that "we love the beautiful." Wealth is the result of the virtues I have enumerated, and we should neither decry nor abuse this wealth, but learn how to use it properly for the instruction and delight of the world, and for the honour of our country. I have touched, in former lectures, on the merits and peculiarities of Greek, Roman, Byzantine, Saracenic and Romanesque Architecture, and I now propose to give you some remarks on Gothic, not as Mr. Ruskin once said, "to put into a storehouse for use, but into a gallery for study." I think it will not be amiss now to show you some master-pieces of Romanesque and Gothic after the Parthenon, for all subsequent Architecture is a lineal descendant from the Greek. I think nowadays, few will deny that though Gothic is very far from having attained the perfection of Greek Architecture, even if it attained to the dignity of Roman, it has been able to raise emotions of perhaps a loftier sort than those raised by any other monuments; it has given us

LESSONS IN COMPOSITION,

that, at least, are different from those to be learnt from any other Architecture, and has shown to what perfection construction in stone may be carried. One of the æsthetic triumphs of late Gothic is the effect produced by pierced work in stone, which is certainly different from any thing west of India; and it made another stride in the logic of building. The Greeks, and the Greeks alone, studied how to gain the utmost effect in their buildings from brilliant sunshine in a clear air; every moulding was adapted to that end, with a perfection that indicates the most profound study, corrected by experience and failure. The Gothic Architect had neither the clear air, nor the brilliant sunshine; as a rule the atmosphere in which they built was always more or less misty, and their sunshine, where they had any, was

feeble; so they set themselves to work in the most logical way, to see how effects might be obtained in the mist, by deepening shade, by strongly accentuating the parts that took the light, and by perfecting outlines to be seen against the sky.

THAT SEVERE RESTRAINT

that the Greeks imposed upon themselves, the Gothic Architects were not cultivated to practise; even supposing that they were sensible of the matchless beauty of Greek Architecture. which is most improbable, for apart from their professional knowledge and skill, the bulk of them were probably ignorant and uncultivated men. As late as the fourteenth century the French Architects, the Bons, the desigders of the Porta della Carta and the Ca d'Oro at Venice, were merely designated as stone-cutters (Taglia de pietra). It is scarcely likely that these Gothic Architects, who had at their fingers' ends a new development of Architecture, who had surpassed the Romans in the height of their buildings, and had nearly equalled them in the spans of their vaults, and were revelling in intricate geometrical forms, should have been captivated by the massiveness and simplicity of Greek Architecture; they probably despised the constructive ignorance of the Greeks and their lack of ornamental geometry, and what they looked on as the absence of interesting detail. The Gothic mouldings were, in all probability, the result of the Architects' efforts to gain the effect they wanted in their own climate. If you exclude square mouldings, such as the fillet and fascia, the Greek mouldings were the bead and torus, the quarter round, the ogee, and the hollow, and in late work the cyma recta; each one infinitely varied, as the case required, but rarely departing from the generic form, and in their best Doric work a very few even of this restricted number of mouldings were used; while in Gothic there were hundreds, if not thousands, of mouldings used in a great Abbey Church or a Cathedral; it was therefore impossible to bestow much time on their elaboration. I may here say, that I use the word Gothic in its common signification, as the laymen's Art that sprang up at the end of the Romanesque period of clerical Art, about the middle of the twelfth century, which for easier recollection we call the Art of the thirteenth century, to its extinction in the early part of the seventeenth century. I may also say, that I do not propose to investigate Gothic archæologically or philosophically, though both sorts of investigations are

PROFOUNDLY INTERESTING.

I am going to treat it practically, that is, to see what lessons we may learn from it for present use. Many get their living by being able to copy or paraphrase Gothic, and though the desire of getting one's living is very praiseworthy, it will scarcely help us directly in advancing the Art of Architecture, which is the one thing to be most earnestly desired and sought after. I hope I may enlist you in this quest, for surely nothing should be more desired by Architects than to see Architecture again a flourishing and progressive Art, expressing all the main characteristics of the wonderful epoch in which we live, and meeting the desires and raising the admiration of the most cultivated people of this epoch. When the public realises what Architecture does for a nation, even for a town, it will be treated with greater respect, and the Architects will be more cherished, admired, and honoured, and will thus be stimulated to make greater exertions. It must be borne in mind that it is an obtrusive Art. In a town it meets you at every step, and cannot be hid away like a book, a picture, a statue, or a musical instrument. If it be real Architecture, and produces the right emotions that the building should excite, it makes that building at once deeply interesting. It proclaims, even in an ordinary street, the relative dignity and taste, the occupation or the liking of the owner, that is, supposing he had it built for himself, while, if it be a public building, it bespeaks a higher or more important office, and in both cases causes admiration for the care, thought, and invention bestowed upon it; at the same time it shows the character and condition of the nation at the time it was erected, and is a permanent memorial of the cultivation of the people. No reflective person can see any kind of Architectural monument without it giving him a notion of the people at the time it was built; its gables, pediments, domes, spires, towers, lanterns, and pinnacles diversify the skyline, and give interest to it; it tells of an expenditure of wealth and labour,

OF SKILL AND INVENTION,

and gives us a sort of epitome of what the people once admired. It is full of lessons of the most important sort that we can hardly miss, while many buildings fill us with delight from their beauty. We know little of mediæval times, and we should know much less of them were it not that mediæval buildings are dotted all over the country. Architectural monuments may be ruined or pulled down, but, except in the case of the very small ones, they cannot be moved; and if they are beautiful, lovely, sublime or frowning, they attract persons from all parts of the world to see them, or as students to study them; and when at last, in the vicissitude of ages, the nation that built them becomes insignificant, or is swept away, they still remain as landmarks to show how rich, powerful, scientific, and tasteful it once was. How little should we know of Egypt, of Babylon or Nineveh, of Mexico and Peru, and how much less should we think of their former power and greatness, if all their colossal buildings had been destroyed. Should not this reflection appeal to the patriotism of nations, and induce them to foster Architecture and to honour the Architects, and should not the same reflection stimulate the Architects to hand down to remote posterity, in enduring monuments, the greatness and cultivation of their time?

NEWCASTLE SOCIETY OF ANTIQUARIES, ANNUAL MEETING.

THE annual meeting of the Newcastle Society of Antiquaries was held last week in the Library of the Old Castle, Newcastle. The annual report was submitted, and stated that the membership of the Society has been well maintained, the numbers now amounting to 345. The Excavation Committee regrets that partly owing to the unfavourable character of the weather during the past autumn no progress has been made with the excavations at Great Chesters (Aesica). The members of the Society have heard with deep regret that one of the few remaining mediæval towers on the walls of Newcastle is threatened with demolition. It is earnestly hoped that the Corporation may be able to intervene to prevent such an act of barbarism and to preserve the Herber Tower (as the structure is called), and the fine stretch of the walls adjoining, as a slight memorial for the citizens of Newcastle of the more stormy, but also more picturesque age in which these works of defence were reared by their ancestors. With respect to those portions of the town wall of Newcastle which the ravages of time have spared, an effort should be made, and that speedily, to prevent further destruction. Mr. W. H. Knowles, one of the Council of this Society, has attended a meeting of the Parks Committee of the Corporation, and repeated the suggestions made by him ln a paper which he read at the November meeting for the preservation of the interesting thirteenth-century ruin, in Heaton Park, known as King John's Palace; it is hoped that the Corporation will undertake the slight but necessary work for its protection. It has been reported to the Council that a portion of the south wall of Doddington Pele, an interesting though late tower, has fallen down. The Earl of Tankerville is the owner. Mr. R. G. Bolam, his agent, is taking steps to prevent further damage, and it is intended to remove the farm buildings which abut on the tower, so that there may be a clear space all round. The financial statement showed that the total revenue from all sources was £535 16*s.* 3*d.*, and the total expenditure was £593 19*s.* 2*d.* The castle showed an excess of receipts over expenditure of £29 8*s.* 4*d.* The black gate, for the first time, had met its outlay, there been a credit belance of a few shillings.

AT Tokenhouse Yard, last week, the Esplanade Pier at Shanklin, was offered for sale by order of the directors, with the concurrence of the mortgagee. The pier is 1,100 feet long and 30 feet wide, and is constructed of wood and iron. The amount expended on its erection is said to have been £18,000. Biddings ranged from £5,000 to £6,950, after which the property was bought in at £7,500.

FORD MADOX BROWN'S WORKS AT THE GRAFTON GALLERIES.

BROUGHT together at the Grafton Galleries the very representative collection of works by the late Ford Madox Brown will come upon you as something of a surprise. For, in the matter of colour, Madox Brown's works is very—even aggressively—startling; and then, beyond that again, it is very decidedly puzzling. To discover that an Artist has *no* sense of colour, or no very particular and acute one, or even that he has a negative or perverted sense about it, is, usually, a very simple matter; for in any of such cases the question of colour may be left at once out of the reckoning. But this is impossible in the case of Madox Brown. He never in any but his youthful work, done under Belgian influence, evaded the employment of colour—nay, very frequently he seems to be challenging attention as a colourist, and a colourist essentially and chiefly. And frequently the only conclusion that one can come to about his colour is that it is very bad—about as bad as anything can be. And yet by no means always, nor always in like measure. Nor, even when it is most trying to the æsthetic sense, is it devoid of the suggestion that it is aiming, though quite unsuccessfully, at something that is rather fine and failing of it—not for ignoble reasons. In colour as in breadth of effect, in intensity and in expression, Madox Brown frequently fell short because he attempted too much. The colouration of the born decorator cannot be combined with equal portions of that of the unflinching realist; it is possible, nay easy, by aiming at both to achieve neither. Madox Brown's life-work is summed up with considerable completeness in the present exhibition; the wall paintings, whose execution occupied so large a portion of his later time and energies, being represented by sketches in colour, cartoons, and replicas that give a very adequate suggestion of the original works in the Town Hall at Manchester. The chief easel pictures of his most characteristic periods are here: so are many of the works of his youth, when his *technique* was Belgian and Rembrandt his inspiring divinity; so are cartoons of various inspirations, from that of the Westminster Hall competition to that of the mystical phase of Pre-Raphaelitism; so also are studies, sketches, woodcuts—even pottery—executed from his designs. No. 12, "The Romans Building Manchester"—a preparatory painting for one of the large wall pictures—is a favourable example of Madox Brown's later style: the mingled workers, Britons and Roman legionaries, the incompleted masses of brick building, and the casual disposition of things in general, give to it a certain air of naturalness that is partly convincing. There is, too, a distinct effort at open-air effect upon the helmets and other arms of the Romans, and the chart of the new city and the cloaks of its founders are blown about as they would be upon the top of the ramparts of a city in an exposed position.

WE understand that the name of Mr. T. W. Barry, of Buckingham Street, Strand, should have been associated with that of Mr. Tarring in the design submitted for the Exeter Church Competition which we published in our last issue.

AT Oxford, the hall which has been acquired as a memorial to Bishop Hannington was formally opened last week. In 1895 part of the site of New Inn Hall was purchased from Balliol College for the sum of £3,500, and the old building formerly occupied by the undergraduates of New Inn Hall has been converted into a hall, with a gallery capable of holding from 250 to 300 persons. The ground floor is set apart for a missionary library, the only one in the University.

THE Belgian Consul-General, M. Edouard Seve, has received instructions from his Government to intimate that a public adjudication upon tenders, open to international competition, for the construction of 2,000 metres (2,161 yards) of quay upon the river Scheldt, south of Antwerp, will take place in that city on the 30th April next. British engineers and contractors are specially invited to tender, but it is stated that the work will not be entrusted to any but firms of recognised competence. Detailed information may be obtained in the proper quarter. It has already been announced that a large extension of the dock and quay accommodation of Antwerp has been resolved upon.

Bricks and Mortar.

EFFINGHAM HOUSE, ARUNDEL STREET,
February 3rd, 1897.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate: and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gildea ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—JOHN RUSKIN.

LORD ROWTON'S third model lodging-house—or, rather, the third house set up by the company of which Lord Rowton is the chairman—has attained nearly its full height, and will, it is expected, be opened some time this year. It is situated at Newington Butts. In its main features it will not differ much from the two that have already proved so successful, one at Vauxhall and the other at King's Cross. It will be considerably larger than either of them, and it will accommodate somewhere about 800 inmates.

OUR Gloucester correspondent states that, in connection with the alleged vandalism at Gloucester Cathedral, Mr. Fred Waller (Architect to the Dean and Chapter), who has charge of the restoration of the Lady Chapel, has written to the secretary of the Society of Antiquaries, stating that for sanitary reasons it has been found absolutely necessary to remove part of the lovely old floor of the chapel in order that unwholesome soil and vaults and graves might be filled with concrete. It will, however, be carefully replaced after the necessary work has been done. Mr. Waller emphatically denies that the reredos is being restored, and, in fact, it has never been touched since the havoc committed during the Commonwealth.

IN an arbitration which took place recently, respecting the purchase of two houses in Beresford Street, Walworth, by the School Board, a surveyor asserted that property in Walworth was as sound as Consols, and that recently no less than ten millions sterling had changed hands for bricks and mortar. The owner, Mr. Kidman, who paid £610 for the two houses five years ago, regarded them as now worth from £900 to £1,000, and thought the School Board should pay him the last-mentioned sum for their compulsory acquisition. Sir William Marriott, Q.C., contended on behalf of the School Board that £650 was quite sufficient, but ultimately the jury assessed the price at £755.

AT the Royal Society of Painters in Water-colours may be seen a special exhibition of works by the lately deceased members—Lord Leighton, P.R.A., A. W. Hunt, G. A. Fripp, A. D. Fripp, E. K. Johnson, Richard Beavis, and George Du Maurier. In many ways the most interesting works shown here are the examples of George Du Maurier's water-colour painting. These are interesting in themselves as specimens of execution in a little-accustomed *technique* from a man of varied abilities who specially excelled in another line; interesting also as showing to which of his pen designs Du Maurier attached such importance as to wish to rehandle them in something like picture form. This gifted Artist's work in colour should not be quite so hastily dismissed as the superficial critic may incline to suggest. Let it be granted over and over again that the specialist in black-and-white is in a position of particular and embarrassing difficulty when he occasionally attempts to deal with colour. One-half of his *technique* is absolutely familiar to him as a matter of constant and every-day practice, the other technical half is far less ready, and the disproportion between the several facilities, too, is in itself a fertile source of difficulty. The sense of line is more than prompt to state accurately, definitely, and emphatically; the sense of colour would linger, fearful of error, and frequently betrayable into mis-statements should it mend its speed. That the occasional work in colour of Artists in black-and-white is seldom wholly satisfactory may sometimes be accounted for by the theory that a certain conscious lack of the colour-sense led the Artist into that particular branch of his Art, but this was not the case with Du Maurier.

THE huge pile of buildings for the extension of the Post Office Savings Bank, in Queen Victoria Street, which was to have been ready for occupation at Christmas, is not yet out of the hands of the contractors, and probably will not be for another five or six weeks, some difficulty with workmen having, it is said, delayed operations. The new building lies at the back of the old one, the two being connected by bridges across Knightrider Street, and thus practically forming one gigantic establishment. When the Department takes possession of its new quarters, the Savings Bank Comptroller will have about him a staff of upwards of 2,000.

AN action is about to come before the local County Court to recover compensation from the War Office for damage inflicted upon the Parish Church of Grayne, near Rochester. "Whatever its results, it is," says Truth, "a monstrous thing that the vicar and his parishioners, or, for the matter of that, any private parties, should be put to expense and trouble of this kind by the War Office. The fort by which this damage has been done was built in 1862, and in those days the firing from it did not inflict any damage on the Church. But with the development of artillery the matter has become very serious, two of the guns in the fort being among the largest in use. The Church, which dates from the eleventh century, was so much shaken structurally that it had to be restored some two years ago. The War Office then contributed the paltry sum of £50 towards the £1,000 which had to be spent; and this chiefly, no doubt, for the reason that the troops use the Church and that the War Office are the principal landowners. Since then both the east and south-east windows have been smashed by the firing, and the War Office, when applied to for compensation, cooly repudiate all liability."

ONE of the dining rooms in the Hôtel Victoria has just been entirely redecorated. The chief object in carrying out the alterations was to make the interior as bright and light as possible, and this result has been achieved in a high degree. Much assistance in this direction was afforded by Mr. John Fulleylove, R.I., and the scheme of colour resolved itself into a selection of white and gold. The bases of the white columns supporting the body of the hall have been brilliantly relieved by the use of metal castings, which tend greatly to throw up the light, and the effect is enhanced by filleted mirrors, after the Venetian style, which adorn the walls in the place of the dark and subdued paintings which formerly hung there. White marble also plays a prominent part in the decoration of the hall.

THE Great Western Railway Company has decided to build, at a cost of £60,000, a new station at Windsor. One special feature will be a group of buildings for the personal use and convenience of Her Majesty and her guests and visitors; and it is intended that this portion of the new work shall be available for use before the commencement of the anticipated festivities of next summer. The Company had hoped to get the new station ready in its entirety for the coming season; but delay has been caused by an unexpected difficulty, now overcome, in connection with some of the land that was required.

THE destruction of St. Anna at Pelago, in Tuscany, by an earthquake, has caused much misery in the neighbourhood of that picturesque ittle I alian town. Built principally in the early part of the seventeenth century, St. Anna is situated on a mountain side some three thousand feet above the level of the sea. The first tremors of an earthquake were felt early in the evening of the 21st December. There were several severe shocks, which caused widespread ruin, old castles and Churches, old houses and modern villas being destroyed impartially. A beautiful little roadside Chapel, called the Saint Antonio Oratory, was laid in ruins, notwithstanding its solid seventeenth-century walls. The great tower and the fine old Church were not spared, nothing but a small part of the Church being left.

CROSSGATES has grown rapidly in recent years. A large proportion of the residents are in business in Leeds; about five hundred travel daily to and from the city, and the number increases rather than diminishes. As indicating the rapidity of the growth, it may be mentioned that during the last two years more than a hundred dwelling-houses have been erected on the land lying between Manston Lane and the railway, and building operations are still going on there. In Church Lane, and at New Manston and Stanks, a number of new houses have also been built, but development in this direction is retarded, owing to there being no suitable land in the market. On the Whitkirk side, the Hollyshaw House estate, situated on the right-hand side of the lane leading to Whitkirk Church, has recently been laid out for building purposes by Mr. Percy Robinson, Architect, Leeds. His plans provide for the erection of between seventy and eighty houses in blocks facing east and west, each residence with garden back and front.

THE Incorporated Society for Promoting the Enlargement, Building, and Repairing of Churches and Chapels, at its monthly meeting at the Society House, 7, Dean's Yard, Westminster Abbey, S.W., made the following grants of money, namely:—Building new Churches at Ealing, St. Saviour, Middlesex, £300; and Mitcham, St. Mark, Surrey, £120. Re-building the Churches at Dolphinholme, St. Mark, near Lancaster, £50; and Newton-in-Makerfield, St. Peter, Lancashire, £50; and towards enlarging or otherwise improving the accommodation in the Churches at Edstone, St. Michael, near Kirby-moorside, Yorks, £15; Hove, All Saints', Sussex, £190; Oving, All Saints', near Aylesbury, Bucks, £5; Willesden, St. Andrew, Middlesex, £125; and Yiewsley, St. Matthew, near Uxbridge, Middlesex, £100. The following grants were also paid for work completed:—Hull, St. Augustine, £80; Wall, St. George, near Wall-on-Tyne, £50 on account of a grant of £60; Streatham, All Saints', Surrey, £100, on account of a grant of £120; Carlton Miniott, St. Lawrence, near Thirsk, Yorks, £40; and Gateshead, St. Patrick, £25. In addition to this the sum of £672 was paid towards the repairs of 17 Churches.

AT Bradford, recently, Mr. W. E. Preston read a paper to the Bradford Scientific Society dealing with the antiquities to be found on Rombalds Moor. In the course of his paper, Mr. Preston referred to the great destruction of barrows and early stone monuments which had been the result of the enclosures of the last and the early part of the present centuries, and described especially a tumulus which existed until a few years ago on Baildon Moor. This was at one time, within the memory of living persons, from five to seven feet high, and was composed of earth and stones, protected on the north and east sides by a ditch and bank forming a right angle. This had now been entirely destroyed, and the stone used for making the road between Eldwick and Baildon. Four years ago, when the reservoir for the Baildon waterworks was in process of construction, a circle of thirty upright stones was discovered during the clearing of the surface of heather and peat. The height of the upright stones varied from two to four feet, and they were set at unequal distances from each other, the diameter of the circle being eighty feet. The ground in the centre of the circle showed evidences of fire, the sandy soil being burned to the depth of a foot. Until the clearing operations took place, the circle, which was perhaps the only perfect example to be found locally, had escaped notice. After describing generally the various classes of antiquities of prehistoric date to be found on the moors, the reader of the paper alluded to a nearly obliterated circle which he noticed in 1892 on Rivvock Edge, overlooking Keighley. The diameter was about sixty yards, and the wall of the circle was composed of loose stones and earth. In the centre was a large rock covered with peat and heather. On examination of a small portion which was exposed, this rock proved to be inscribed with a number of small and rather indistinct cup and ring marks. This aroused curiosity, and on removing the peat the whole surface of the rock

Proved to be covered with such markings. This was perhaps the only case in which an inscribed rock had been found enclosed within a circle on the Yorkshire moors.

THE practice of affixing commemorative mural tablets to the walls of houses in which historic personages have resided, or historic events have happened, has only been adopted of recent years in Edinburgh, but good progress has already been made with this pious work, and the New Zealander who visits the modern Athens, may read as he runs where Burns put up on the occasion of his historic visit to the capital, where Scott and the Opium Eater dwelt, where David Hume died, and where Lord Brougham, the joy of the caricaturist, first saw the light. For the latest addition to these mural records, the citizens of Edinburgh are indebted to the zeal and public spirit of the local Pen-and-Pencil Club, which has just marked No. 18, Buccleuch Place, as the birthplace of the Edinburgh Review. For it was in that house that Francis Jeffrey lived in the earliest years of the century, and gathered about him one day in 1802 that historic assemblage of young Whigs so graphically described by Sydney Smith. As the leading journal of the other great Scottish city remarks, one can never look without respect on a periodical which has given the world the criticism of Jeffrey, the wit of Sydney Smith, and the essays of Macaulay.

A SUB-COMMITTEE of the Leeds Corporation was recently appointed to confer with Alderman Scarr, with reference to the site of the fountain which he proposed to erect in City Square, and present to the city. The following report was afterwards presented to the Corporate Property Committee. "That in the opinion of this sub-committee the proposal of Alderman Scarr for a fountain for City Square is as yet in too indefinite a form for the committee to judge fully of its suitability for the position opposite the post-office, where, in their opinion, a fountain should be of appropriate design, and not over 10 feet high; but the sub-committee think it advisable that a decision upon the matter should be deferred until the scheme already authorised by the Council has been carried out." The report was adopted.

AT a general meeting of the Society of English Artists, held at the Regent Gallery, Regent Street, the following resolution was passed respecting the title of the Society, to which the Royal Society of British Artists had raised an objection: "That there is no legal obligation on the part of the Society of English Artists to change the name as suggested in the letter received from the Secretary of the Royal Society of British Artists, as there is no infringement of title, as alleged; at the same time there is a feeling that the similarity of the names is objectionable, and therefore, we, as a young society, are desirous of meeting the wishes of the older body, and with this view it be resolved to alter the name to the Society of English Painters."

A COMMITTEE has been appointed by the Corporation to deal with the condition of Cardiff streets, which are said to be in a very disgraceful state. The Corporation has obtained sanction for the expenditure of about £34,000 upon the principal roads in the town, but it is very questionable whether the thing will prove complete when it is done. There is an old and well-known adage to the effect that that which is worth doing at all is worth doing well, and it does not seem at all likely that the Cardiff Municipal Governors are going to do this work well. We will take Queen Street first. With the excellent pavements that have already been laid, and roadway laid with wood, this would make one of the finest in the West. At the approach to the Taff Vale Station the wood terminates, and there immediately follows a spot which is the noisiest spot in the town. Above are two railway bridges, over which there passes an enormous amount of traffic, and beneath is a road laid with granite setts, upon which there is a continual stream of traffic. Why cannot the wood road be continued to the University College? Noisy this end of Queen Street must always remain, but with wood paving it would be materially improved. It would certainly improve one of the most unpleasant roads in Cardiff, and be worth the extra expenditure. It is to be hoped that the Cardiff Corporation will decide to extend the work in this direction so far as the University College. Again, while St. Mary Street and High Street are to be improved, the almost equally important road—Castle Street—is not to be touched, and here the existing difficulty of mud will remain and be carried by the traffic on to Duke Street. Further still, Bute Road is to be laid with granite setts as far as the Taff Vale Station, where wood is to succeed it. Now Bute Road of late years has become one of the most important entrances to the town. The steamboat traffic has enormously increased, and there are many important offices situated there. Surely, under these considerations, wood is the proper thing to be laid.

THE Estimates for Class I. of Civil Services—that for Public Works and Buildings—for the year ending 31st March, 1898, were issued on Thursday night, and they show a net decrease of £35,972 compared with those of the current financial year. The total amounts to £1,861,810. The following are proposed increases: Admiralty, extension of buildings, £15,000; public buildings in Great Britain, £26,000; rates on Government property, £24,514; and surveys, £7,151. The Votes which show decreases are:—Revenue Department buildings, £63,400; harbours and lighthouses, £5,800; royal parks and pleasure gardens, £6,000; royal palaces and Marlborough House, £5,000; and diplomatic and consular buildings, £5,800.

IN his second lecture of the Cantor Series, now in course of delivery at the Society of Arts, John Street, Adelphi, on "Material and Design in Pottery," Mr. William Burton spoke of the splendidly decorated fine earthenwares of Persia and of Italy, and pointed out that the differences between the two colour schemes adopted by them could be completely explained by the differences of the components of the white facing of the earthenwares in one case and the other. The white grounds used in both instances were equally favourable to the development in their fullest richness and brilliancy of blues and greens; hence in Oriental and Italian pottery these colours are profusely and happily employed. But the element of tin used in the Italian ground was destructive to reds, so that in that class of work we find reds suggested by tints tending to pink or brown; while in the Oriental ware, with its facing of siliceous slip, reds could be developed to their utmost—as is superbly shown in much Rhodian work. Conversely, the Oriental ground was quite destructive to yellows, and these we never find in Persian or similar ware successfully attempted; while the clearness, brilliancy, and perfection of the yellows (developed upon a tin basis) is a most striking feature in some of the masterpieces of the Urbino ware.

EXTENSIVE additions are proposed to the Central Police Station, Parliament Street, Hull, and plans have been sent showing the proposals to the Home Office. The Committee has received a communication from the Home Office asking that the plans be reconsidered, and stating that Sir Matthew Ridley is advised that the existing buildings are incapable of being converted into a more suitable police station, and that if such a station is to be provided on the present site the only course is to pull the buildings down and re-erect them in conformity with modern requirements. The Chairman, at a recent meeting, said the sub-committee felt that in view of the very great alteration which would take place in the Old Town by the purchase of the Kingston Gas Company's undertaking and the projected street improvements, it was desirable not to spend money in rebuilding the police station, but to wait and see how matters developed. It was therefore decided to postpone the consideration of the project for a time.

MR. SKIDMORE, the Bradford stipendiary magistrate, has just come into possession of a small block of wood, part of the old drawbridge formerly spanning the lake at Walton Hall, Wakefield. The relic is of historic interest, as being associated, though somewhat indirectly, with the siege of the original Walton Hall during the Civil Wars, it is said, under Cromwell's personal direction. It is a well-attested fact that while the troops of the Parliamentary forces were encamped at Sandal Castle, near Wakefield, a reconnoitring party was detached to Walton Hall to search the premises. The drawbridge, however, was let down, and the search party were unable to cross the lake to the hall. Doubtless the drawbridge would remain until about the middle of last century, when the late Squire Waterton's father rebuilt the hall and enlarged the lake. The castellated gateway, with central tower and flanking turrets, is still standing by the side of the lake. The gate is of thick oak planking, studded with heavy-headed nails, and is pierced with loopholes for musketry. Evidences of the Cromwellian siege exist in marks of the bullets which were fired at the loopholes from the opposite side of the lake. One ball is still embedded in the woodwork, and is almost buried. During the time that Walton Hall was occupied by the late Mr. Edward Hailstone, Mr. George Field found a quantity of timber in an outhouse at Walton, with dove-tailed cuts, which had formed part of the old drawbridge, and from which Mr. Skidmore's block has been cut.

A BIG scheme for Church work was brought forward at the annual meeting of the Birmingham Church Extension Society last week. An appeal was made for £211,250, and, in addition, a yearly subscription list of £11,700. It was proposed to erect new Churches and mission rooms to accommodate 15,100 persons, at £7 10s. per sitting, and give room for one in eight of the population. A total of £113,250, besides £98,000, was asked for for the Bishopric scheme.

MR. PERCY WOOD is exhibiting at his studio, 25A, Queen Anne Street, W., the finished model for the statue of the Saviour, to be produced in bronze, and erected at Lady Henry Somerset's Temperance Colony, at Duxhurst. The figure is of life size, and designed with unaffected grace and dignity. The type of face which the sculptor has evolved is based rather upon the accepted ideals of Christ than upon new or eccentric experiment. It is noteworthy that this is stated to be the only statue of the Saviour designed for public erection in England since the time of the Reformation.

A REMARKABLE demand for old arms and armour was clearly shown at Christie's, when the sale of the important collection formed by Herr Richard Zschille, of Grossenham, was commenced. A Swiss dagger, with scabbard of copper-gilt, chased in relief with William Tell shooting the apple from the head of his son, fetched £110; while a rapier of the sixteenth century sold for £370. A tournament helmet went for £300; a close helmet for £115; and a demi-suit of armour, from the Meyrick collection, for £105. Amongst other items were a curious sword and wheel-lock pistol combined, circa. 1560, £100; a saddle, composed of polished deer-horn plates, carved in relief, circa. 1400, £480; a crossbow, with ebony stock, richly inlaid with engraved ivory, and with the coat-of-arms of the Elector Augustus I. of Saxony, £270; an arbalist, supposed to have belonged to Duke Julius Henry of Brunswick, from the Londesborough collection, £215; a circular shield, or rondache, of blued steel, and damascened with ornaments in gold and silver, £70; and a wheel-lock sporting gun, £190.

ST. SAVIOUR'S, Southwark, in which a window will shortly be dedicated to Fletcher, may be said to pay a special tribute to the bravery of the old English reformers and to the fame of literary men. Memorial windows have been or will be placed to render permanent the names of Massinger and Beaumont, Fletcher's companions. Shakespeare will monopolise three panes close at hand, whilst Chaucer, Bunyan, Johnson, and Goldsmith will, amongst others, be allowed this "transparent" honour. Nor must be forgotten the tomb of John Gower, the father of English poets, who died in 1402. Among the heroes of religion is recorded the memory of Roland Taylor, Dr. Hooper, John Rogers, and Philpott, Archdeacon of Winchester. In fact, Winchester seems to have been closely connected with the parish, for the tomb of Launcelot Andrewes, Bishop of that diocese, lies in the Lady Chapel.

TO further the movement in favour of the National Registration of Plumbers, a meeting was recently held at Truro, under the auspices of the Council for Devon and Cornwall of the Worshipful Company of Plumbers, London. Mr. W. J. Addiscott said the object of the Company was to educate the public to the value of good plumbing.

They did not recognize trade organizations either of masters or operators. But as the apprenticeship system had to a great extent been done away with, the Company established examinations, both theoretical and practical, in order to give those who did not serve their time an opportunity of showing their knowledge of the trade, and they were willing to hold examinations in various centres throughout the country. Already there had been examinations at Penzance, Exeter, and Torquay, and, if sufficient candidates were forthcoming, they would hold them at Truro, as their object was to bring the movement to the very doors of the plumbing craft. In consequence of the opposition from ironmongers and other sections of the trade who sought to foist themselves on the public as plumbers, the Bill for the Registration of Plumbers had never got beyond second reading. That opposition had now been done away with, and it was the intention of the company to first introduce the Bill in the House of Lords.—Mr. S. Trevail was pleased to know that the Company confined itself strictly to the qualification of the handicraft, and did not attempt to interfere with the commercial side. They would have his cordial sympathy and support while they confined themselves to the education and improvement of plumbers. He should be equally ready to support a proper qualification for stonemasons. In the plans for the Central Technical Schools to be built at Truro, he had made proper provision for the instruction of plumbers, and he asked for the support of the Company in that matter. If they sent a lecturer or demonstrator, doubtless students would come from various parts of Cornwall.

Two interesting objects have just been placed on review in the exhibition galleries of the British Museum, one in the Department of Egyptian Antiquities, the other in the Ethnographical Section. The first of these is a stone object in the shape of a cartouche or royal escutcheon, and dedicated by Rameses II. to his wife Tui. Traces of vermillion colouring are still visible on the edge; it is probable that the whole thing was originally covered with it. The inscription, which occupies the top and bottom portion of the cartouche, reads:—"The King of the North and South, Lord of the two lands Ra-usar-ma-setep en Ra (prenomen of Rameses II.), giver of life for ever. The hereditary great princess, Royal wife Tui." The other object is a sacrificial stool, presented by Sir Gilbert Carter, K.C.M.G. It was obtained at Ife, in the Yorub country. This object is made of quartz, and stands about 3 ft. high, with a table-like top of 6 ft. in circumference.

It is understood at Mandalay that it is settled to construct an iron bridge across the Irrawaddy, from the Amarapura shore to Sagaing, for trains and foot-passengers, who would pay a small toll. The traffic at that point of the river has been increasing, and the obstruction to the transport of goods wagons over the river through the formation of the sand-bank at the shore has, it is said, caused the management of the railway to recognise the advisability of incurring the enormous expense of a bridge, the construction of which, presenting no extraordinary engineering difficulties, would be completed in a couple of years or so from the date of starting the work.

If it were as easy to supply a deficiency as it is possible to point out its existence some of the gaps in the collection in the National Gallery would be very promptly filled up. Some recrimination, which is unfortunately quite justifiable, has just been indulged in by papers on both sides of the Channel, concerning the admittedly inadequate representation of the British School in the Louvre and Luxembourg, and of the French School in Trafalgar Square. To do our neighbours justice it cannot be denied that the French Government has lately made some real attempts to secure fully representative examples of several of our more distinguished painters, living and dead, and it cannot be doubted that as opportunities occur these hopeful first-beginnings will lead to more sustained efforts. The old idea that no good thing in Art could come out of the British Isles has at last given way, and a sincere appreciation of what is best in our painting is becoming more evident in French Artistic circles.

BUILDING TRADE EXCHANGE FOR EDINBURGH.

A STRONG desire has for some time existed among parties connected with the building trades throughout Edinburgh and district that an exchange should be instituted on somewhat similar lines to the Glasgow one, and a meeting was recently held in Dowell's Rooms, George Street, Edinburgh, when about 200 of those interested were present. After some possibility remarks from the chairman, Colonel Bennett, Glasgow, who was largely instrumental in inaugurating the exchange there, gave his experiences of that institution, and also of those in America, which he had visited. He said they in Glasgow had found it advisable to take a lesson from their brethren in America. What they had done in Glasgow had proved the possibility of the existence of these exchanges in this country. The general principle was a simple one. The builders believed that a more intimate social relation and acquaintance with each other would tend to check the bitterness of rivalry and keep the eagerness of competition within reasonable limits. Further, it was believed that the skill and knowledge of each member would be secured by all, and their usefulness to the community increased. Such exchanges had been instituted in nearly every one of the larger cities of the United States, and their utility demonstrated. In America the builders were nearly fifty years in advance of those in Britain. The principles of the exchange were adhered to in the offices of

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and surveyors. An exchange based upon proper lines, and which was strong and associated for the common good of all, would mean that the competent man would come to the front and the laggard would go to the wall. The exchange would also mean the putting an end to shoddy work and shoddy prices. In Glasgow, during the last two years, they had formed themselves into a limited liability company, and they were perfectly solvent. They had found favour with many of the Architects and surveyors. In fact, they found benefits daily. In Glasgow, they had pointed out the fallacies of the new City Improvement Bill. Mr. Cook, secretary of the Glasgow Building Trades Exchange, also addressed the meeting, explaining the inner working of his institution. Their membership in Glasgow was about 300. They had found a firm footing, and were now in a really prosperous condition. In reply to a question, he stated that at the close of the first year, the Glasgow Exchange had a surplus of £50, and at the close of the second year £200. Councillor Yooll, Leith, moved that a Building Exchange be formed for Edinburgh and Leith. Mr. Peter White, in seconding the motion, said the members of the building trade desired to protect themselves in a proper business fashion. They did not want the Town Council or any other body to teach them. In Edinburgh, the builders were just cutting each others' throats, whereas, in Glasgow, they had succeeded in abolishing a great deal of unnecessary competition. The motion was unanimously adopted, and a committee appointed to forward the formation of the exchange.

CONSIDERABLE damage was caused by fire last week at Trinity Church, Birchfield. The whole of the contents of the vestry were destroyed, including the registers. The roof was much damaged.

MR. F. H. TULLOCH, M.Inst. C.E., an inspector of the Local Government Board, held an inquiry at West Bridgford on Wednesday last, into applications of the Urban District Council for sanction to borrow £13,275 for works of private street improvement, and £1,504 for public works of sewerage and street improvement. No opposition was forthcoming.

THE magnificent Japanese bronze, which Mr. E. W. Beckett, M.P., has purchased for the museum in the Leeds Art Gallery, represents a goddess who, according to a Japanese legend, was the creator of that country. She is figured standing on a dragon that she has charmed by her song, accompanying her theme on the viol or lute. There is an exquisite finish about the work that will make it a valuable and attractive addition to the public collection.

NEW TOWN HALL FOR CARLISLE.

EIGHT months ago the Carlisle Town Council appointed a committee to consider and report upon the proposal to erect a new Town Hall for the city. They have now had a meeting, and have interested themselves in discussing sites. No fewer than six are suggested. One is an area which includes the site of the present Town Hall; another means the demolition of the ancient hall of the Trade Guilds, which dates back to the time of Richard II., and is known as Redness Hall; a third would involve the destruction of a large block of property adjacent to and including the Crown and Mitre Hotel—the old Coffee House, reminiscent of some of the best stories of the coaching days and old Carlisle; another site would account for property of almost equal note, in the shape of the Grapes Hotel, belonging to the Corporation, which did away with the licence some years ago, and is now looking for the old sign—a gilded bunch of grapes—to place in the Museum. Her Majesty's Prison is suggested as a site. In a similar way a few years ago it was suggested as a site for the new Public Markets. The sixth and last site suggested is the vacant ground upon which the Church Congress Hall was erected. As a matter of fact, although there are many leading citizens who would like to see a new Town Hall, the subject is not yet ripe, and it must be years, in face of water, sewerage, lighting, and other large questions, before it can come to a head. The present Town Hall, which was built in the reign of Queen Elizabeth, has been altered and improved many times, judging by the numerous legends which are inscribed over its doors and windows. It has been much modernised, but has become altogether inadequate for the business transacted there. Old pictures represent it with diamond windows and swing shutters, with ledges overhanging the shops below, and an extensive semicircular flight of steps in the centre. These have gone, as also has the "muckle toun bell"—from an ancient foundry—which was cracked in a fire that occurred at the Town Hall some years ago. It was anciently called the Guild Hall, and Chancellor Ferguson—to whose eminent services as historian and antiquary Carlisle owes much—says, "The name long survived as the designation, and the proper one, too, of the building now commonly called the Town Hall, but whose name in the Corporation records is always the Guild Hall or Moot Hall."

MR. J. PIERPOINT MORGAN, of New York, has undertaken to erect, at his own expense, a building to cost about $1,000,000 for the New York Lying-in Hospital.

THE Prince of Wales has expressed a desire that the fountain in memory of the late General Sir C. Fraser, V.C., should be erected in Sloane Street, at a point opposite the house where the General used to reside.

ON Saturday afternoon seven memorial stones were laid in connection with the erection of the Salvation Army Barracks in Chapel Street, Harrogate. The building has frontages to three streets, and the cost, including land, is about £8,000, the lower portion of the premises being utilised for shop purposes.

ONE of the largest fires that has occurred in Bristol for some years broke out on Wednesbay morning at the immense factory of Messrs. Todd and Co., at Temple Gate, resulting in the destruction of the building and contents, and a loss estimated at nearly £40,000.

THE Town Council of Windsor has been engaged in committee discussing propositions for the commemoration of the Queen's reign. The most favoured proposal is one to build a new infirmary, in the place of the present Windsor Royal Infirmary, to be built on a portion of the Bachelor's Acre.

THE total cost of the proposed Hull and South Yorkshire Extension Railway undertaking is put down at £149,700, of which the main line will cost £135,100. The main line will be 8 miles 5 furlongs in length, and will commence by a junction with the Hull and Barnsley Railway at South Kirkby, and will terminate in the township of Wath-upon-Dearne. The line will be constructed as a single line throughout its whole distance.

Professional Items.

BOSTON.—The Primitive Methodist Chapel at Boston, Lincs., was on Thursday afternoon almost entirely destroyed by fire. The Chapel was built in 1886, and accommodated 720 worshippers. The fire is supposed to have been caused by the heating apparatus.

BRAMLEY.—Sir John Barran, Bart., opened the Bramley Zion Baptist New Sunday Schools recently. The ground floor is divided into eight class-rooms, with a meeting-room capable of seating 150 persons. On the first floor is an assembly-room, capable of accommodating 500 persons, and four class-rooms. The total cost of the building, which is in the English Renaissance style of Architecture, and is erected from the designs of Mr. W. Hobson, of Leeds, is about £2,500.

BRISTOL.—The re-opening of the Church of St. Mary's-on-the-Quay, Bristol, took place a few days ago. The building has recently undergone renovation and decoration at a cost of upwards of £300. The chancel has been painted and decorated in oil, and in a style in keeping with the Architecture of the building. The east end beyond the pillars has been enclosed within a broad border carrying medallions of the sacred monograms of our Lord and the Blessed Virgin, broken up with scroll ornaments, and on the side walls a unique effect is produced in the treatment of the panels, while other details of the decoration harmonise effectively. The altar has been repainted with solid panels of gold, bearing suitable enrichment, and the stone reredos cleaned and restored, the altar of the Lady Chapel being similarly dealt with. The recess over the Lady Chapel has received additional decoration.

CARDIFF.—A new font has been erected in St. Francis Church, East Moors, as a memorial of the Rev. H. S. Nicholson. The bowl of the font is of Portland stone, in one piece, with carved lip and scrolls, and rests upon green Irish marble columns, having moulded Portland stone capitals and bases, the whole standing upon two massive stone steps. The cover is of polished oak. The bowl is lined with lead and furnished with a drain. The font has been erected by Messrs. A. J. Howell and Co., Queen Street, from the designs of Mr. H. H. Turner (of Messrs. Habershon and Fawckner, Architects).

DEVONPORT.—Mr. H. G. Luff, of Chapel Street, Devonport, is the Architect for the new Conservative Club premises at 7, Fore Street, opposite the Public Hall. The premises include a large and lofty billiard room, 48 feet by 18 feet, with pitch-pine roof and dado, and a lantern light extending the entire length. The first floor, which is reached by an easy staircase with mahogany hand-rail and pitch-pine balustrade, is devoted to the reading room. The secretary's room is on the half-landing and the card and smoking room on the second floor, where there will also be a room set apart for deputations and transacting matters connected with the organisation of the party. The caretaker's apartments will be on the top floor.

DUMFRIES. — Dumfries School Board has resolved to erect a new elementary school. The new building will supersede the Greensands School, and the Board agreed to purchase a site in George Street, from the representatives of the late Mr. M'Lean, auctioneer, and the late Mr. Grierson, builder, at the price of £1,800.

EDINBURCH.—St. Margaret's Church, Juniper Green, which has just been completed from plans by Councillor R. M. Cameron, Architect, Edinburgh, was dedicated last week. The Church, which has cost £5,000, is seated for six hundred people. At present the only part of the Church unfinished is the tower, the completion of which will require another £800. The fabric is a handsome Gothic structure, crucifix in form, with side aisles, a centre nave, north and south transepts, chancel, and apse. The nave is separated from the side aisles by five pointed arches, while the transepts and chancel are spanned in single arches from the large piers of the central square tower which rises above the building. A barrel-shaped timber roof runs along the whole length of the building, and is divided into bays by moulded ribs springing from carved stone corbels placed immediately over the pillars in the nave, and thus neatly separating the clerestory windows. A stone arched organ chamber is placed near the chancel and south transept, and large windows with fine tracery are placed in the east and west ends of the Church.

EXMOUTH. — Memorial stones of the new Church and school being erected at an estimated cost of about £6,000 were laid. Centrally situated, the new buildings will be visible from the Strand, Rolle Street, and Chapel Hill. With seating accommodation for nearly seven hundred persons, the principal building will consist of nave, transepts, and chancel, with a gallery over the vestibule. To the right of the chancel will be the organ chamber, the minister's vestry being on the left. The main entrance will be from Rolle Street. The schoolroom, immediately in the rear of the Church, will accommodate nearly four hundred children, there being also six class-rooms and a ladies' parlour.

GLASGOW.—The fourth monthly visit of the High School Building Construction Classes took place on Saturday, when Mr. Dobson's students were shown over Mount Florida School, which is in course of erection for the Cathcart School Board. The style the Architect has adopted for the building is a free treatment of Classic. The planning has been carried out in an admirable manner. The basement contains the necessary fresh air ducts warmed by high pressure pipes. It also contains the janitor's house and other rooms, while upstairs, on the ground floor, the central hall is situated, 44 by 38 feet, surrounded by nine large class rooms. On the upper floor a similar mode of division takes place, but a cooking centre has been placed here The Plemin system has been adopted, the propeller being situated in the basement, the warm fresh air being discharged well above the heads of the scholars, and taken away by shafts either at floor or ceiling, depending on the condition of the atmosphere outside. The building will ultimately accommodate about 1,200 scholars, and is built of Locharbriggs stone. The cost is expected to be about £2,000. Mr. David Barclay is the Architect, and Mr. John Sim, at the close, was courteously thanked for his services to the students in showing them over the building.

GREAT BADDOW.—After having been closed six months for repairs the Parish Church has been re-opened. The Church dates back to about the fourteenth century, and some portions of it to an even earlier period. The work of restoration, for that is what it practically amounts to, has been carried out by Messrs. Choat & Son, of Chelmsford. The side galleries have been removed, and a great improvement has thereby been effected in the interior of the Church, and a still greater improvement would be obtained if the organ gallery at the western end was also taken down. The chancel roof has been stripped and relaid, and the inside of the chancel roof, where there was formerly but a plaster ceiling, has been lined with oak panelling, with moulded ribs and carved bosses. The two dormer windows on the north side of the chancel have been taken down and rebuilt, so as to exactly correspond with the old ones. The side walls of the chancel have been scraped, and three monuments removed from the chancel end to other parts of the edifice. The roof over the aisles has been re-leaded on the outside, and inside the plaster ceiling has been substituted by oak boarding, while the exterior roof of the nave has been re-slated. All the stone work in the Church has been re-dressed, and the two large windows have been cleaned and re-pointed. The two arcades have also been re-pointed. The total cost of these renovations is about £1,000.

HAMILTON.—The Parish Church of Hamilton, which has been closed since the beginning of October for renovation and the introduction of an organ, has been re-opened. The work of renovating and redecorating has been carried out under the direction of Mr. A. Cullen, Architect. The organ, which has been placed in the Duke's Aisle, has been erected by Messrs. Ingram & Co., Edinburgh and Hereford. Its action is tubular-pneumatic, of the latest type, and the instrument is enclosed in a neat oak case, designed to correspond with the oak panelling of the gallery of the Church.

HEMSWORTH.—Mr. F. H. Tulloch, M.I.C.E., Inspector to the Local Government Board, recently held an inquiry in respect to the application of the Rural District Council to borrow the sum of £15,500 for purposes of water supply to the contributory places of Hemsworth, Brierley, Shafton, South Kirkby, South Emsall, and South Hiendley. The clerk (Mr. Joshua Scholefield) explained that the area of the entire district involved was 12,647 acres, the rateable value £48,472, and the present population 9,255. An agreement has been made with the Barnsley Corporation for a supply under their new Bill, and it was estimated that the cost of the scheme will be £15,000, which was apportioned upon the contributory districts as follows: Brierley, £1,306; Hemsworth, £5,284; Shafton, £915; South Elmsall, £1,488; South Hiendley, £2,045; and South Kirkby, £4,062. There was no opposition.

HOLBECK.—At a meeting of the Leeds Building Clauses Committee, it was reported that Mr. Hainsworth (the Building Inspector), together with two or three members of the committee, had had an interview with Mr. Rhodes, the Architect who has prepared plans for the erection of a new theatre, and that the latter had agreed to make additional entrances, and to improve the access to the gallery. The committee expresses itself satisfied with the plans as amended.

LEEDS.—A special sub-committee of the Leeds Corporation recently met at the Town Hall, for the purpose of considering the question of providing more adequate stabling accommodation for the horses used by the Sanitary Department. Three months ago the Highways Committee took over the site on which the old stables stood at Crown Point for the purpose of erecting thereon an electrical generating station for the Roundhay and Kirkstall electrical tramways. Since that time the 130 horses belonging to the Sanitary Department have had temporary accommodation found for them in private stables. This system has entailed considerable expense, and the committee is anxious that the Corporation should as early as possible possess its own stables. The question is not so much whether the Corporation should provide such accommodation, but whether the stables are to be built upon one site or on land adjoining the four refuse destructors of the city. The city engineer (Mr. Hewson) was instructed to prepare plans for the erection of three blocks of stables, capable of accommodating 166 horses, on the site recently acquired by the Corporation in Dock Street. It will be remembered that £14,000 was paid for this land, which covers an area of about 11,000 square yards. On this property also it is proposed to erect workshops and offices—in fact, to convert the place into the central sanitary depôt of the city.

LOUGHBOROUGH.—On Wednesday the new recreation room erected at the Loughborough Girls' High School was opened. The plans were prepared by Mr. G. H. Barrowcliff, and the contract for £477 was placed in the hands of Mr. A. Faulks. The new room is attached to the main building, and is practically an elongation of it on the Burton Street side. It has therefore been erected in a similar style of Architecture and material, of red brick and tile, with facings of Derbyshire stone.

LOW FELL.—Erected by the Gateshead School Board at Kell's Lane, Low Fell, a new school was opened last week. It has been built from the designs by Messrs. Oliver and Leeson, Architects, Newcastle, and provides accommodation for 880 children. It is designed on the "central hall" principle. Each of the two floors has six class-rooms, in addition to the usual teachers' rooms, cloak rooms, &c. The school is so planned that it may be worked either as a separate boys' school and separate girls' school, or on the "mixed" principle, with one headmaster over the whole. Particular attention has been paid to the lighting and ventilation of the rooms. It is built of Pewlaw bricks, with stone dressings. The whole of the work has been carried out by Mr. Joseph Elliott, contractor, of North Shields; Mr. W. Edington having been the clerk of the works. The slating was done by Mr. Wylie, of South Shields; Messrs. Dinning and Cooke supplied the heating apparatus, and the lavatories and sanitary fittings generally were supplied by Messrs. Twyford and Co.

NEWCASTLE. — The branch establishment, erected by the Newcastle Savings Bank at Gateshead, was opened on Saturday by the Mayor of Gateshead. The new premises are situated at the corner of West Street and Bensham Road. The style adopted is English Renaissance. The building has a massive Peterhead granite plinth and doorway. Above the plinth and up to the first floor level the facing is of Kenton stone, varied with red stone from Dumfries. Above the first floor level, the facing is of Normandy red brick, relieved with stone bands and dressings. The roof is covered with green slates, and the dome at the angle is of copper. The banking room is lighted on three sides, and is entered the angle through an inner porch. The board room is on the first floor, and above are rooms for the caretaker. Messrs. Haswell and Waugh, of Gateshead, were the contractors, and Mr. G. B. Burnett has acted as clerk of works. The slating has been executed by Mr. J. Hewitson, Newcastle; the plumbing by Mr. Corking, Gateshead; the plastering by Mr. Rule, Gateshead; and the painting and glazing by Mr. Moreton, Gateshead. The granite, marble work, tiles, stoves, and gas fittings, have bean supplied by Messrs. Emley and Sons, the counter and other furnishings by Messrs. Sopwith and Co., and the lead glazing by the Gateshead Stained Glass Company. The contract for the whole of the work was £3,615, and it has been carried out under the supervision of the Architect, Mr. Stephen Piper, County Chambers, Newcastle.

PAISLEY.—The new Board School in Carbrook Street, plans of which were recently passed, will be two stories in height, with accommodation for 836 pupils. The estimated cost is £8,000.

PUDSEY.—A new school has just been erected by the Wesleyans at Valley Road, Pudsey. The school, which has been much needed, contains a large tea-room in the basement, a large school-room on the first floor capable of seating 450 persons, and six large and two small class-rooms, the Architects being Messrs. Hodgson and Farrer, Pudsey. The cost is £1,200.

ROCHDALE.—An effort is now being made to complete the Church of St. Luke, Deeplish, Rochdale, by the building of the nave. The present nave is entirely of a temporary character, and the chancel, designed by Mr. R. Knill Freeman, cost £2,700. Further plans have been prepared by the same Architect, which will require about £3,300 to carry out. In addition to the promises already made, some £1,700 is needed.

WOLVERHAMPTON. — St. George's Church, which has been closed for some time to allow of extensive alterations and repairs, has been re-opened. The alterations include the removal of three bays from each of the side galleries, the whole of the old high-backed pews, and the upper galleries, which gave accommodation for about 200 children. The floor has been relaid with wood blocks, and the whole of the pews now consist of plain oak. The choir has been extended, and the old high pulpit has been replaced by one of oak on a stone base. The chancel and choir have been treated in a most imposing manner, and a massive rood-screen divides the nave and choir.

AT the St. Paul's Churchyard end of Cannon Street, on Thursday morning, a water main burst breaking up the wood pavement for several yards.

MR. ALBERT E. PRIDMORE, C.C., of 2, Broad Street Buildings, is the Architect engaged in erecting Hampstead Hill Mansions, Downshire Hill, for Mr. Alfred Hackworth.

THE Kingston Town Council has authorised an application to the Local Government Board for sanction to the borrowing of a further sum of £20,000 for extensions of the electric light within the borough.

AT a meeting of the Glasgow Harbour Tunnel Company, the Bill to ask powers to raise capital to the extent of £130,000 to equip and finish the undertaking was approved.

THE traditions of Mabille have been suddenly effaced by the demolition and sale of the flimsy structure which made up the Jardin de Paris. The clearance was necessary for the buildings to be annexed to the new Palais de l'Industrie.

SOCIETY MEETINGS.

York Architectural Society. — At the annual dinner of the members of the York Architectural Society, Mr. Henry Perkin, F.R.I.B A., the President, occupied the chair. Mr. A. W. Turner, in proposing "The Royal Institute of British Architects and Kindred Institutions," said, Architecture was a profession taken up by men of great intelligence, and the Architect should possess qualities that are diametrically opposite to those of the practical worker. He had to exhibit Artistic feeling in what he did, and must be a man of imagination. We lived in an age of progress and invention, and this and kindred institutions were taking active parts in the onward march. He advised youthful aspirants in the profession to pull with the times in educational matters, and to cultivate the thinking and reasoning faculties. Mr. W. Watson, in responding, remarked that lately the Royal Institute had done better work for the profession generally than was the case ten or fifteen years ago. Formerly it was sadly too exclusive. He thought the time had come when Architects should be registered as one of the learned professions, and if such a result could be achieved during the present memorable year it would be a matter for great satisfaction. Mr. J. W. Knowles proposed "Success to the York Architectural Society," which, he said, was progressing, and had been in existence about 15 years. The President made response. He called attention to the syllabus and papers for the 15th session, and stated that Mr. Godfrey Bingley, of Leeds, the Dean, Canon Argles, and Mr. A. J. Penty would read papers, and that in March there will be an exhibition of the prize competition drawings of the Royal Institute of British Architects. He remarked that the Society fairly held its own in an increased membership, but there were several leading Architects in York whom he would like to see amongst them. He spoke of the advantage of being allied with the Royal Institute, and of benefits which members of the profession hoped to reap. He thought the Institute had shown a disposition to treat them fairly.

The Northern Architectural Association.—The Students' Sketching Club, in connection with this Association, held their seventh annual smoking concert and exhibition of drawings and sketches in the Grand Assembly Rooms, Newcastle, on Tuesday evening the 26th January, when about 100 members and friends were present. The President (Mr. A. M. Dunn) having sent a letter to say he was too unwell to come, the Vice-president, Mr. Joseph Oswald, F.R.I.B.A., occupied the chair and opened the concert. Those present, included the Hon. Sec. Mr. A. B. Plummer, and Messrs. J. T. Cackett, W. S. Hicks, H. C. Charlewood, W. L. Newcombe, W. Glover, J. A Morton, C. S. Arington, S. Piper, &c. The musical programme, which included an orchestra of nearly 20, was a great success, owing to the indefatigable zeal with which Mr. E. Fenwicke and Mr. Harold Oswald had arranged it. The usual votes of thanks terminated the proceedings.

Midland Institute, Archæological Section.—The Committee, in their annual report, state that there has been a further falling-off of eight in the number of members of the section, which was 208 at the end of the year 1895, and now stands at 200. This decrease has not, however, materially affected the financial position of the section, but it is, nevertheless, unsatisfactory to observe a steady, though small, annual reduction in the list of members, which in 1892 numbered as many as 228. The usual number of papers dealing with antiquarian matters had been read on Wednesday evenings, and, with one exception, had been of peculiar interest to the Midland Counties. The attendance at the summer excursions, which last year fell considerably below the average, has greatly improved. The value of the library of the section has been enhanced by the addition of several volumes, plans, rubbings of brasses, &c., and a supplementary catalogue of the property has again been included, with the volume of the transactions for the year 1895. Steps are being taken to avert the possible destruction of the old "Strafford House" at Camp Hill.

The Builders' Merchants' Association of London.—The third annual dinner, preceded by the annual general meeting, over which the President for 1896 (Mr. W. Sankey) presided, was held at the Midland Grand Hotel, St. Pancras, on Thursday, the 21st January, 1897. The proceedings following the dinner were opened by the President for 1897, M. Clement Braby (who presided) proposing the health of "the Queen and the Royal Family." Following this came the toast of the late President, Mr. W. Sankey, of Hammersmith, which was ably given by Mr. Erith, who commented upon the able manner in which the retiring President had carried out the arduous duties of that office. The late President replied to the toast, thanking those present for the hearty manner in which they had received it, and stated that in his endeavours to further the interest of the Association he had received much benefit and pleasure. The toast of "the President for 1897, Mr. Clement Braby," was entrusted to the care of Mr. E. Montague Edwards, of Messrs. Young and Marten, Stratford, who remarked that an Association of this character needed in its President an experienced, determined, and yet diplomatic individual, to ensure its successful working. It had prospered under the Presidency of Messrs. Hughes, Broad, and Sankey, and he felt, in proposing the toast of the present chairman that the Association possessed in him the qualities necessary for such an important position. He would like to see the good points of the four Presidents rolled into one, in order that the Association might materially benefit by the combined wisdom, energy, and tact; but, as this would be impossible, the next best course to pursue would be for the Presidents to act conjointly as one. Mr. Braby, in replying, said he appreciated the toast, and further said the very fact of the Association existing, and of these annual dinners being held, had done, and is still doing, a great deal to further the interests of the trade generally. This Association had, during the past year, been working in a quiet way, but he felt sure that a very great deal more good work had been carried through than could be represented in black and white on the minute-book. The next toast was that of the Builders' Merchants' Association and kindred Associations, coupled with the names of Messrs. Hughes and Wragge, proposed by Mr. Dobson (of Messrs. Godson and Dobson), who, in the course of a well-delivered speech, said, "Since I have been in this building, and have had the pleasure of listening to your annual report, and to the remarks that have been made concerning the work of your Association during the past year, I am filled with wonder and astonishment that you could go on so long without some one thinking of starting the Association years before you did. I believe you have done very good work indeed in the past, but I also believe there is far more to be done in the future. If only we can be brought together more often as we have opportunities, for, being in an Association like this, I feel sure the result will be most beneficial to all." Mr. Wragge (of Messrs. Eastwood and Co.) rose, amid cheers, to reply on behalf of himself and the kindred Associations, and said, "There may be many Associations kindred to your Association, but the two with which I am personally most concerned are the Brick Masters' Association, and the newly-formed Lime Merchants' Association. With regard to the Brick Masters' Association, it is pursuing the even tenor of its way. I hear that several merchants belonging to your Association are thinking of going into the brick trade, but I may tell them this: it is not such a flourishing business as it is made out to be. I can assure those present that there is no antagonism between the brick masters and merchants; what the former have done they have had to do in self-defence, and I think it is for the merchants to support them in it. It has been said by one speaker to night that he hoped I should one day preside over this Association as I preside over the Lime Merchants' Association. I beg to say I do not preside over the Lime Merchants' Association, but am identified as its Hon. Secretary. I am entirely in sympathy with the Builders' Merchants' Association, and give it my support because it has been the means of my becoming acquainted with many merchants whom I only knew before by reputation. I quite agree with Mr. Dobson, that the more we are brought together the better it will be for us. With reference to the Lime Merchants' Association, I think it will succeed, because it is now so strong that

no lime merchant or burner can place himself against it." Mr. Hughes, in replying for the Builders' Merchants' Association, said, "With perseverance and pluck, I believe we shall prove a great success. I dare say some of us remember the Midland Pipe Manufacturers' Association—the pipe manufacturers are now united as a body, and I do not see why we cannot get into touch with them, and, as they are now more consolidated, I think we are in a better position to approach them; all they ask for is a *quid pro quo*. It has been a great pleasure to me to listen to Mr. Wragge's remarks; we have heard his words, and I think they will have their effect upon all. If we only stick to our guns, by the end of this year I believe we shall be united in association for our mutual benefit, and I hope that when that does come our friend, Mr. Wragge, will 'boss.'" The toast of "the Visitors" was proposed by Colonel Sankey, who is one of, if not the oldest, merchants in the lime trade in London, and Mr. Joseph Cook (of Messrs. Freund and Co.) suitably responded.

Liverpool Engineering Society.—The annual dinner of the Liverpool Engineering Society was held at the Adelphi Hotel last week. Mr. S. B. Cottrell, the President, occupied the chair, and was supported by the Lord Mayor. Mr. J. Wolfe Barry, President of the Institution of Civil Engineers; Mr. J. Brancker, Chairman of the Dock Board; Professor Hele-Shaw, Mr. A. L. Jones, Mr. J. T. Wood, Mr. F. C. Danson, Chairman of the Liverpool Chamber of Commerce; Principal Rendall, Mr. A. Holt, Mr. A. G. Lyster, Engineer, Dock Board; Mr. A. T. Squarey, Dock Board Solicitor; Mr W. H. Preece, Director of Postal Telegraphs; Mr. H. P. Boulnois, Mr. A. Ross, Mr. F. Gregory, President of the Incorporated Law Society; and Mr. G. Farren.

Institution of Electrical Engineers.—An ordinary general meeting of the Institution of Electrical Engineers took place last week at the Institution of Civil Engineers, Great George Street, Westminster, S.W. In his inaugural address the President, Sir Henry Mance, said that there were in existence to-day more than 1,300 submarine cables, the aggregate length of which could not be less than 162,000 nautical miles. They represented a total expenditure of about £40,000,000. Up to quite recently nearly every telegraph cable of importance had been manufactured in this country, but England could no longer boast of a monopoly in that business. The deeper the water the better the bottom and the safer the cable. In shallow water the cable became encrusted with shell fish, and it swayed with each turn of the tide. Marine monsters, such as sawfish, considered it their larder, and, while raking off the marine life, either ruptured the cable or penetrated the core with one of their formidable teeth. Lightning, earthquakes, landslips, and submarine volcanoes had all to be reckoned with, and the leviathan of the deep had more than once been responsible for an interruption. But probably the most dangerous enemy was the teredo, to ward off whose attacks the plan had been resorted to of covering the core with thin brass. In order to effect repairs a fleet of 41 telegraph shtps was maintained. The work of the telegraph engineer was in one respect incomplete; it still remained for him to established a girdie round the earth. He (the President) did not attach too much importance to the possibility of the telegraphic isolation of England in the event of war.

The Yorkshire Archæological Society.—The report for last year states that the cash sheet shows that the society is in a prosperous condition, a sum of over £90 remaining in the bank to its credit, although a large amount has been spent on the new rooms in Leeds. The capital account has been increased from £1,213 to £1,321 during the year, chiefly due to the legacy of £100 received from the executors of the late Mr. Stanhope Smart, for many years the hon. auditor of the society. The number of members is slightly less than last year, 607 as against 615, but even this is to some extent counterbalanced by there being only 53 members in arrear with their subscriptions, as against 85 at the date of the last annual meeting. The chief event of the year, and it may almost be said in the annals of the Society, has been the taking of a permanent home. Some months ago Colonel Wilson reported to the Council that he had the offer of the Old Medical School, 10, Park Street, Leeds, as a head-quarters for the Society. It was decided that a sub-committee of the Council should confer with a sub-committee of the Thoresby Society with a view to jointly taking the rooms. Several meetings were held, and ultimately the two Societies entered into an agreement with the Yorkshire College to rent the rooms for a period of five years, with the option of purchase at the end of that period. These rooms have been thoroughly renovated and made comfortable, the books belonging to the Society have been removed from Huddersfield, and any member can now obtain them on application to the Hon. Librarian, The Yorkshire Archæological Society, 10, Park Square, Leeds.

Sanitary Inspectors' Association.—A meeting of the Yorkshire Branch of the Sanitary Inspectors' Association was held at the Town Hall, Bradford, on Saturday afternoon. Mr. T. Pridgin Teale, presided. Mr. William Ackroyd, public analyst to the borough of Halifax, read a paper on "The Scientific Aspects of the Sewage Question." With respect to effluents, he said that, as there was no legal standard of purity, it would lead to precision of ideas if those interested in the matter referred to the standards recommended by the Rivers Inspection Committee in 1872, after four years of investigation. At some future time it would be necessary to have a legal standard for all sewage, trade as well as domestic. The effluents from manufactories would always be a trouble to local authorities. The grosser forms of pollution had only to be found out to be stopped. In going through certain sewage works he had seen a large heap of logwood chips which had been removed from one of the tanks. On another occasion, at a dye-works, he had noticed two workmem at the subsidence beds attached to the works coolly raking blue-black silt into the beck. He had known of a secret opening in a boiler-house, down which the fireman shovelled his ashes, to be carried away by the next flood. These and other abuses of water carriage could only be stopped by rigid inspection. An ideal system of sewage purification would probably admit of many modifications to suit the special requirements of its neighbourhood. But with regard to oils, if a high degree of purity were required, beyond mere clarification, the microbes had to be considered, and there must be the requisite conditions for cultivating them up to a certain point.—A debate afterwards took place upon a paper read by Mr. A. W. Stanley, of Hull, at the last meeting of the Association, in which he advocated that much greater care should be taken in laying the drains of houses, and that greater power should be given to sanitary inspectors in supervising such work.

Shrewsbury and District Master Builders' Association.—At the fifth annual dinner in connection with the above Association, Mr. T. S. Harris proposed "the town and trade of Shrewsbury," and said that he did not think they were likely to rise to the level of a large manufacturing community, but at the same time it was possible for them to rise to a very much greater height than they had done up to the present time. They had amongst them not only the opportunities but also the ability to attract and conduct larger business than they had done hitherto. He thought they had shown that they were capable of manufacturing the best class of goods, and that they could not only supply their own town and neighbourhood but could also go further afield and compete with towns more favourably situated. With a little more encouragement they might be able yet to make the town a centre not altogether insignificant in the manufacturing world. This, of coure, rested with thsmselves, and he hoped that the spirit of enterprise would carry them further than they had been able to reach at present. As to contemplated improvements, he thought they might congratulate themselves that at last they were within measurable distance of an improved railway station. He had heard that evening of the placing of an order for something like four million bricks, which of course meant the circulation of a considerable sum of money. Other things were looming in the distance which must add to the trade of the town.

Royal Institute of British Architects.—Mr. Alexander Graham, F.S.A., presided over a meeting of the Institute on Monday, reported on another page. He announced that the Council propose to recommend that, subject to Her Majesty's most gracious sanction, the Royal gold medal for the present year be presented to P. J. H. Crypers, of Amsterdam, for his executed works as an Architect. It was the opinion of the Council that the gold medal might this year be awarded to a foreign practising Architect, and Mr. Crypers was, as many of them knew, the leader amongst Architects in Holland. During the 50 years of his career, he had embraced his craft most thoroughly. He had built Churches in every direction, and to such an extent, that they wondered any other Architect in Holland had found anything at all to do.—The Chairman further announced that a visit to Peterborough Cathedral will be paid on Saturday, the 6th instant, under the auspices of the Institute. The party was limited to 30, and 21 members of the Council and others had already signified their intention of accompanying the trip. The Committee, at a meeting held on the 18th ultimo, had passed the following resolution:—"That the Council having fully considered the matter of the restoration of the west front of Peterboorugh Cathedral are of opinion that it would be inexpedient for the Institute to take any public action therein." At the next ordinary general meeting of the Institute, Mr. H. E. Milner will read a paper on "The garden in relation to the house."

KEYSTONES.

IT is proposed to restore the ancient Parish Church of Ryther.

A NEW Conservative club building is to be erected in Loughborough, at a cost of £6,000.

THE annual "James Watt" dinner of the Institution of Engineers and Shipbuilders of Scotland took place last week in the Windsor Hotel. Sir William Arrol presided.

MR. S. TREVAIL, of Truro, has been appointed Architect for the new County Asylum buildings at Bodmin, which are likely to cost between £30,000 and £40,000.

THE plate glass of the roof light of the Northwich County Court fell in one day last week, Mr. Rhodes and Mr. Overend Evans, barristers, of Manchester, had marvellous escapes, and Mr. Lawrence, a solicitor's clerk, sustained a wound to his head, requiring his removal to a surgery.

THE Hon. Walter Rothschild has consented to lay the foundation stone of the South Hackney Synagogue and Class Rooms, which are being erected from the designs of Mr. Delissa Joseph, F.R.I.B.A. Feb. 14 has been selected for the ceremony.

THE condition of the old bridge at Perry Barr was under discussion at a recent meeting of the Perry Barr District Council. It was unanimously decided to petition the County Council to widen the bridge, which at present is only 9 feet wide, and protected by a very low parapet.

THE Sanitary Committee of the Leeds Corporation has resolved to recommend the Council to give an invitation to the Sanitary Institute to hold its annual Congress in the city during the month of September next. Last year the Congress took place at Newcastle.

THE proposed expenditure of Ayr Town Council for 1897 embraces £10,000 on sewerage, £6,000 on iron bridge near station, £8,000 on extension of the water works, £1,000 on underground conveniences, and £10,000 on extension of electric lighting plant.

WE understand that the Caisse de la Dette has granted the Egyptian Government £(E.)250,000 from the general reserve fund for drainage works, on condition that the entire sum is expended this year. This will confer a great benefit on cultivation, as owing to the extended irrigation much land is becoming waterlogged. The Cairo tramways, which were constructed and are worked by a Belgian company, will shortly be extended to the Gizeh Pyramids

IT has been reported in Wolverhampton that large orders have been given out by some sheet-iron and wire-rod and other ironmasters for American steel, which is now actually arriving in the form of tin bars and billets. The price which the Americans quote for bars for sheet rolling, 30 feet long by 9 to 9½ inches wide, is £4 5*s.* delivered, or 7*s.* 6*d.* to 10*s.* below English prices. Steel billets they are delivering into Lancashire ports at £3 17*s.* 6*d.*

Trade and Craft.

LEGAL INTELLIGENCE.

The claim brought by the trustees and creditors of Mr. Wm. Brooks, against the St. Pancras Guardians, which has long occupied the attention of the Official Referee, Mr. Edward Ridley, Q.C., was resumed on the 22nd inst. It will be remembered that the plaintiffs, who are builders' merchants, sue as trustees of creditors of Mr. Wm. Brooks, of Folkestone, builder, against the Guardians of the Poor of St. Pancras and their Architects, Messrs. A. and C. Harston, for a balance of £24,226, or, alternatively, £24,262 alleged to be due on a contract for the completion of the St. Pancras Workhouse. The plaintiffs' case was that some years ago the Guardians resolved to reconstruct the workhouse in King's Road, and appointed Messrs. Harston as their Architects. The contract for the work was first taken by Messrs. Kirk and Randall, of Woolwich, but disputes arose, and, in 1892, that firm requested to be relieved of further work under the contract. Fresh tenders were invited for the unfinished work, and that of Mr. Wm. Brooks was accepted for £50,861. The work was to occupy fifteen months from May, 1892, but delays arose, and in November, 1894, the work was stopped. Messrs. Drew-Bear, Perks and Co., of Queen Victoria Street, who supplied the iron work; Mr. H. Tolputt, of Folkestone, who supplied the timber; and Mr. J. Brown, of Cannon Street, who supplied bricks, sued on behalf of creditors for the balance alleged to be due to Mr. Brooks. The net cost of the work executed was stated to be on the first claim £65,479, plus ten per cent. profit, £6,547, making £72,026, of which £47,800 had been received under the Architects' certificates, leaving a balance of £24,226. In the alternative claim the net cost of the work executed was estimated at £65,479, as before, but the ten per cent. profit was reckoned on the contract price of £50,861, which, with other amounts claimed, brought the alternative claim to £24,262. The plaintiffs alleged that Brooks was hindered from continuing and completing the contract by the action of Mr. George Poole, the clerk of the works, who interfered without sufficient cause, and condemned materials supplied wholesale. It was also further alleged that the Architects were seldom on the works, and that the interference of the clerk of the works caused needlessly a net loss to Mr. Brooks of £2,526, in addition to £193, the value of the materials left by Messrs. Kirk and Randall, and not permitted to be used. The defendants generally denied the charges against the clerk of the works, and alleged that Brooks had not carried out his undertaking to complete the work left unfinished by Kirk and Randall. The Guardians further relied on the Public Authorities Protection Act, 1893, as being a defence, inasmuch as the matters referred to in the action occurred more than six months before the action was brought. The defendants, Messrs. Harston, pleaded that they were not liable, and said that they had received no complaints from Poole with respect to the manner in which the works were being carried out by Mr. Brooks. Reports of the former proceedings have appeared in the issues of the Builder for November 21st and 28th, December 5th, and the 23rd ult. Mr. Reginald Bray and Mr. A. A. Hudson appeared as counsel for the plaintiffs; Mr. English Harrison and Mr. W. Moyses for the Guardians; and Mr. MacIntyre and Mr. R. W. Turner for Messrs. Harston. Mr. Harrison concluded his speech on behalf of the defendants, after which additional evidence was taken. George Poole, clerk of works, was the first witness called for the Board of Guardians. He said that he had been fifty years engaged in the building trade, the last twenty of which he had acted as clerk of works under Messrs. Harston. He was now in the service of the St. Pancras Guardians. He had heard the evidence given by the witness Fearon in the case. He had not spoken disrespectfully of Messrs. Drew-Bear and Co., when he heard that they were going to take the iron-work. Drew-Bear and Co. knew what was required, and they could do good work if they liked. They had done a large job for Messrs. Harston before, and knew their style of work. It was not true that witness had said to Fearon that he always made a practice of condemning the first parcel of goods received, for by that plan he got people to send better. Witness was clerk of works during the whole time that Kirk and Randall held the contract. On June 1st or 2nd, 1892, Mr. Millward, the clerk to the Guardians, sent for witness to his office, respecting the erection of temporary buildings. Witness was directed to show Brook and Fearon the ground plan, and to explain the way to conduct the job. He in no way interfered with the clearing of the site, but they could not get at the particular point they wanted to work at. It was absolutely false that he told Fearon not to get on the hoarding. It was a huge job, five acres of ground being enclosed, and they did not want all the hoarding at that time. It was totally untrue that the first lot of Thames ballast was condemned on July 14th, 1892. His diary for that date said, "a quantity of satisfactory Thames sand came this day." On February 14th, 1893, Brooks certainly came up about a complaint witness made, and it was untrue to say that these complaints began in July, 1892. There was not a new brick put into the foundations anywhere. Cross-examined as to the girders supplied by Messrs. Drew-Bear and Co., one of which was objected to by witness as being 2 lbs. per foot too light and the other as too heavy, the witness said that he did not know that any margin was allowed as to weight in girders. Of the two girders weighed, each 17 ft. 2 in. long, one was 19 lbs. under, and the other 29 lbs. over weight in the aggregate. Mr. Harston did write saying that the deficiency in that one girder was trifling and not worth notice. Five days afterwards Mr. Harston rejected the girders. He rejected six of the cast-iron columns because the brackets were wrong. There were two defects; the first being that the bracket was out of the upright, and, secondly, that the bracket was not at right angles to the cap. Some of them were as much as an inch out of the upright. He did not say that their being out of the upright diminished the strength. It would affect the look of them, however. At first Fearon had no one on the works who could take the levels, and on his recommendation Fearon employed, from July, 1892, witness's son, Alfred, a surveyor, who took the levels for five or six weeks. Then Mr. Harston wanted Alfred Poole for other work, and Fearon engaged another of witness's sons for the work. Alfred Poole was not more competent than witness was to take levels. He had never intended to say that they had never had a competent person to take the levels. He would not swear that he never marked more than one brick at a time. It was absolutely untrue, as George Brown had sworn, that he (witness) got into a temper and marked the bricks without noticing whether they were good or not. He only once marked the bricks with a carbon, most of them were done with a pencil, and the scratch would remain even though Mr. Harston overruled witness. He had no power of condemnation. The examination of the witness continued, he stating in answer to further questions that he had had no communication with Nash, of Slough, about the job in question, but he had not used his bricks for twenty years. Witness always described the brick he required in writing a specification, because the names of bricks differed in various yards. It was not impossible to comply with his specification. The red bricks were more chipped than those of Brown's usually were, but otherwise they were of good quality. Examined as to the timber, the witness said that it was generally inferior in character. He had always endeavoured to exercise his authority in a conscientious manner. The hearing of the case was then further adjourned till March 1st.

A NEW WOOD-SAWING MACHINE.

Messrs. George Gordon and Co., timber merchants, have now added to their plant at their works in Blaikie's Quay, a horizontal board-sawing machine, which is the only machine of the kind in Scotland. The feature of the machine is that it has two horizontal parallel saws. Machines are already in use in Aberdeen with a single horizontal saw, but none with two saws. The effect of having two saws is, that the machine cuts a log into boards in half the time that a single-saw machine can. The log or tree to be divided into boards is placed by means of a crane on a massive iron table, 30 feet long, and about five tons in weight. It is fixed firmly to the table by means of dogs, and the table is then run up, along rails, to the sawing machine, by means of a revolving screw working on a rack. The end of the log is thus fed against the saws, one of which projects a little in front of the other. The saws are, as regards height, one above the other, placed a distance apart equal to the thickness of the boards which are desired to be cut. The saw-frames in which the saws are fixed are driven from side to side by connecting rods off a two-throw crank with opposite centres, so that the motion of the one balances that of the other and prevents vibration. The crank makes 200 revolutions a minute, each saw, therefore, making double that number of journeys across the machine in a minute. The machine can saw boards up to 48 inches in width, and its cut is found to be very clean. The makers were Messrs. Robinson and Son, Rochdale.

WAGES IN THE ENGINEERING TRADE.

The concession of a fifty-three hours' week to the men engaged in the engineering trade and in boiler-making in the Spen Valley has served to revive the agitation among the similar industries in Leeds for a like reduction of hours. The fact is some of the engineers are almost inclined to regard the success of the Spen Valley workmen as an indirect reflection on the bulk of their trade in Leeds, where, it is said, the organisation is in anything but a satisfactory condition, and where, at the conference held on the subject in December last, when a variety of branches were represented, the engineers were reported to be the least determined in the effort to obtain a reduction of hours. Further, the wages in the Spen Valley district average 32s. per week, which is at least a couple of shillings more than is paid in Leeds. The boiler-makers in Leeds are said to be in receipt of lower wages than in any other of the great towns of the country. It is difficult, at present, to say whether throughout these two trades, as well as among the labourers connected therewith, any joint step will be taken to improve their position, the reason being the inefficient organization, especially in the engineering trade. There is, however, a strong feeling among a section of the men that something should be done.

MESSRS. F. WALTON & CO.

Mr. Hine, the manager of "Lincrusta-Walton," forwards us a copy of a new trade circular which shows undoubted novelty in its method. The average circular is ever with us, and a sigh of relief usually accompanies its safe delivery to the paper basket. Here, however, we have something unusual, an application of "sweetest Shakespeare-fancy's child" to the uses of natural Art. Certainly it smacks of irreverence to mix Shakespeare with advertising, but this is an iconoclastic age, and the thing has been well done in the present case, though as to whether it be "fitly done" we will not attempt to dogmatise.

Announcements.

Editorial.

THE EDITOR will be glad to read any suitable matter submitted to him, and will return all MSS. when stamps are sent to pay postage.

All matter must reach the Editor by the first post on Monday morning to ensure its treatment in the current issue.

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